

From Chambers' Journal.

GERMAN EMIGRATION.

Few subjects are more interesting, and none more important, than the process by which the surplus population of Europe is every day being poured into the unpeopled districts of the old and new world, forming there the framework of future nations, which are doubtless destined to carry our knowledge and the traditions of our society to a period when we ourselves may no longer exist as nations. Hitherto the stream has flowed principally from the United Kingdom, particularly Ireland, which the difficulty of obtaining subsistence must, for many years to come, make an emigrating country. An unexampled peace of thirty-one years' duration has likewise had its natural effect on the continent, by the immense increase of population, to stimulate emigration; but more slowly and partially than among us; and it is only within the last ten years that it has grown to an amount, and assumed a direction, which promises serious results.

France has not for the last century been an emigrating country, which may mainly be accounted for by the less independent and energetic character of the people; the greater comfort of the peasantry, who are almost all small proprietors, farming their own lands; and, above all, the enormous chasm in the population left by the revolutionary wars, which alone are computed to have swept away thirteen millions of Frenchmen. Even in Algeria, which, from its nearness to France, and from the constant premiums, in the shape of land for nothing, held out by the government, was most likely to attract native emigration, the number of French is considerably inferior to that of the other settlers. The majority are Spaniards or Maltese. Belgium has twofold resources in its manufactures and admirable agriculture, which have hitherto sufficed for the employment and support of its dense population; and the other European states contain in themselves, for the most part, large tracts of thinly-peopled or unoccupied land, sufficient to sustain the surplus mouths for a number of years to come.

Germany is the only other country, besides Great Britain, from which emigration takes place on a great scale, and is likely to lead to important results. Since the year 1840, she has sent out annually 60,000 settlers; about our own average. In the present year, the number is stated in the English papers at 80,000. It is very probable that this number will continue for the future, and even increase, as the predisposing causes are not occasional, but permanent, in the subsisting state of the country. The reasons which are all-powerful there, are not the same as actuate us. The results, too, are very different; and their great extent, with the little attention hitherto bestowed on the subject, will be our best apology for considering it a little more in detail.

One great peculiarity in German emigration is, that it is directed exclusively to the United States of America. Some have been tempted to settle at the Cape of Good Hope, in Brazil, or in Algeria;

but the number is inconsiderable. New Zealand has also been tried; but with no great promise of success. Perhaps the greatest number of Germans collected in any one place out of their own country is at Paris, where, among other trades, there are two thousand boot and shoemakers alone, and, at the lowest computation, four thousand master tailors and journeymen. It is curious that the Germans, to whom we certainly attach no distinguishing ideas of elegance, should have so completely absorbed the business of adorning the outer man in the city which prides itself, above all others, on its taste. So far is this carried at present, that the native French aspirants for custom are in the habit of appending to their names a German suffix. Pierre becomes *Pierremann*; Lenoir, *Lenoirmann*; Paul, *Paullmann*, &c.; just as many a tyro in the musical world among us ends his name in *ti* and *tini*, without having a drop of Italian blood in his veins. But these Germans at Paris can hardly be classed as emigrants, since most of them are young unmarried men, who merely go to France to accumulate, in the least possible time, as much as will set them up in business at home. The chief emigration to America at present is from the Upper and Middle Rhine, the Grand Duchy of Baden, Wurtemberg, the two Hesses, and Bavaria. In Bavaria especially, whole village communities sell their property for whatever they can get, and set out, with their clergyman at their head. "It is a lamentable sight," says a French writer, "when you are travelling in the spring or autumn on the Strasburg road, to see the long files of carts that meet you every mile, carrying the whole property of the poor wretches, who are about to cross the Atlantic on the faith of a lying prospectus. There they go slowly along; their miserable tumbrils—drawn by such starved, drooping beasts, that your only wonder is, how they can possibly hope to reach Havre alive—piled with the scanty boxes containing their few effects, and on the top of all, the women and children, the sick and bedridden, and all who are too exhausted with the journey to walk. One might take it for a convoy of wounded, the relics of a battle-field, but for the rows of little white heads peeping from beneath the ragged hood." These are the emigrants from Bavaria and the Upper Rhine, who have no seaport nearer than Havre. Those from the north of Germany, who are comparatively few in number, sail mostly from Bremen. The number of these likewise is increasing. From 1832 to 1835 inclusive, 9000 embarked every year from Bremen; from 1839 to 1842, the average number was 13,000; which increased to 19,000 in the year 1844.

Society in Germany is so much more rudimentary than in England, that it is remarkable to see this same tendency exhibiting itself in the two nations. In Germany population is comparatively sparse, in Great Britain it is dense; in the one there is great wealth and profound poverty, in the other the extremes of property rarely exist; the one has a large and dominant town population, the other has fewer towns in proportion than any country in Europe; the one teems with political

activity, in the other political activity is not, or at least has not yet taken to itself a practical presence and a name.

The dread of destitution is a motive to emigrate in Germany, as in England; but not a principal motive. This is clear from the fact that the emigration does not take place in those districts where there is most want, but exists equally where population is dense, and where it is thinly distributed. In Westphalia, for instance, a great number of small proprietors have lately sold their lands, and sailed for America—each of whom, it is reckoned, has taken with him at least thirty pounds' worth of goods and money. The Bavarians emigrate alike from the Rhine country, where population is thickly clustered together, and from the upland districts, where there are not eighty inhabitants to the square mile.

The one great cause of this almost national movement is the desire for absolute political and religious freedom; the absence of all restrictions upon the development of society; and the publication of opinions which cannot be realized at home. The great agitation in society, caused first by the French domination, and then by the convulsive rise against it, has never passed away. In that gigantic struggle, when everything rested on the popular soul, the bonds of privilege and class were tacitly abandoned, and could never thenceforth be reunited as before. The promises of having constitutional governments, at that time made by the sovereigns to their subjects, have been but partially fulfilled. There is nothing that can be called oppression on the part of the governments; the mass of the people are well satisfied with their rulers—and with reason, for the actual executive has been generally excellent; but there are many restrictions, and the young, the restless, and the imaginative thirst for their ideal freedom, and many of them seek for the realization of Utopia in America. Complete religious equality is a still more powerful want in a country where Catholics and Protestants are so nearly balanced, and where the state of parties is such, that the minority in faith, though nominally equal in law, must always live under the cold shade of an alien creed. This of itself has urged many across the Atlantic. It is probable that the present schism among the German Catholics will add to the number of the emigrants from religious causes.

Another motive has been the great success of some of the earlier settlers. The Moravians and Shakers, who have emigrated from Germany, have worked wonders in some parts. In 1815, the Separatists, another religious body, sometimes called Rappists, from their head, M. Rapp, sailed from Wurtemberg with a capital only of £1200, and formed a settlement on the Ohio. At the present time, the real property in land belonging to the society is reckoned at £340,000, exclusive of personal property, and a large sum of money in the funds. The success of the colony of Zoar has been equally striking. It was founded twenty years ago by a few families with a scanty capital, and now possesses 40,000 acres of land, a disposable capital of £100,000, and an immense quantity of machinery and stock, foundries, tan-pits, and mills in abundance. This extraordinary affluence is because these two colonies were founded on the principle of a community of property, and have been throughout under a strict religious government. But the present emigrants forget this; and looking only at the prosperity

achieved, they think that as the Moravians and Rappists have succeeded, they must succeed to the same extent, without either the same capital or self-denial.

It is not to be expected that the German governments should look with indifference on this constant and increasing defalcation of their subjects. It is not, as we have said, the very poor that emigrate; they cannot, in fact; but it is those who have some little to spare. Every emigrant is reckoned to take with him equal to £25 of English money, which would give an annual subtraction of £1,500,000 pounds—a serious loss in a country which has little superfluous capital. And be it remembered that this is all loss. Lord Brougham said, in one of his speeches, with equal truth and force, of the English emigrants, that not an axe falls in America but sets in motion a shuttle at Manchester. But the Germans in America consume English, not German commodities, and remit nothing to Germany in the shape of produce. As it is hopeless to try to stop the tide, the German governments have exerted themselves of late to turn it in a direction nearer home—to Hungary and the countries along the Lower Danube, where there is an immensity of rich virgin soil untouched. Austria, in particular, is naturally very much interested in establishing a German population in Hungary, to balance the Slavonic element; and with this view a number of pamphlets have been drawn up and circulated, with a comparative view of the advantages of emigration to Hungary and the United States, but as yet with little effect.

Another plan of an opposite kind at present in agitation, from motives of humanity as well as expediency, is, that the Zollverein (customs' union) should appoint a resident agent at Washington, to be at the head of the consular body, and in connexion with the emigration committee sitting at Bremen, so as to have some effective control over the emigrants. Many of them have been grievously cheated by speculators, and the accommodation on board the emigrant ships generally is very bad. The Zollverein is to convey them in its own vessels, and not less than two hundred at a time; which would be a general saving on the present rates of from twenty-five to thirty per cent. On their arrival, the consuls are to take charge of them, and see them conveyed safely to their destination. To pay the expenses of the passage, and for the foundation of pauper colonies, the Zollverein to devote an annual sum of not less than £80,000. Such is the outline of the plan; which is likely, in part at least, to be carried into execution.

The most important point connected with the subject, is the influence which such an annual influx of a foreign population, speaking the same language, and nearly all professing the same (the Roman Catholic) faith, cannot fail to exercise upon the future destinies of the United States. At present, as the whole stream is poured into the same country, the annual number of German settlers considerably exceeds those from Great Britain and Ireland. There are of the former resident in America, according to the last census, about four millions. But this is not all. If, like the English and Irish who cross the Atlantic, they were to spread themselves over the continent indiscriminately, wherever there was the greatest chance of success, the whole, in the course of one generation, or two at most, would blend insensibly with the majority. But they carry out with them all the passions, prejudices, and dis-

positions of the father-land, and keep them immovably. The great object of each family that successively arrives, is to fix itself as near as possible to its relatives, if it has any; if not, to its countrymen. Every settlement thus becomes the nucleus of a pure German circle, which is born, marries, and dies within itself, and with the least possible admixture of Anglo-Americans. In the reign of Queen Anne, a numerous colony from the Palatinate settled on the upper waters of the Hudson, where, after a century and a half, their descendants remain to this day a separate people. "These honest folks," says one of their countrymen, "though living amongst Anglo-Americans for the third and fourth generation, can neither read nor write the English language; and adhering to their axiom, never to become Irish, (thus they designate the Anglo-Americans, who take their revenge by nicknaming them Dutch,) they are contented with their own German idiom."* It is the same with them everywhere. Chance or preference directed the first settlers towards Pennsylvania. To Pennsylvania, accordingly, the stream has steadily set ever since; and the result is, that the German population of that state already balances the Anglo-Saxon; and, in the adjoining state of Ohio, stands as three to seven. Next to these, the greatest number is found in Maryland, Indiana, Illinois, and Missouri, neither going far to the north or south of the same parallel. In most of these states, the debates in the houses of representatives and the laws are printed alike in German and English. If this emigration continue in its present extent and direction, and in the course of time—what is sufficiently probable—a disruption of the great American confederacy should take place, a second Germany will have arisen beyond the Atlantic, and monopolized, along the head waters of the Delaware and Ohio, the possessions of the children of Penn.

From Chambers' Journal.

THE USE OF THE CORSET.

TRANSLATION OF A LETTER TO A LADY FROM DR. REVEILLE-PARISE

ALTHOUGH I have every desire to justify the confidence you honor me with, you must admit, madam, you put me to rather a severe proof. You ask my opinion upon the employment of corsets—whether they are, in fact, as injurious to the health of women as has been said; and whether medical men have not, upon this point, somewhat exaggerated! I well know with what scruples and fears your maternal affection fills you upon this subject. Your daughter, whom I have attended from her infancy, approaches an age at which the desire to please is very natural. But is it possible to please without an elegant form? and can this be attained without a narrow waist!—in other words, without the agency of the corset? These are important questions, not to be decided without care and circumspection. It is long since the subject has been agitated, but always uselessly, the triumph of the corset only becoming the more assured. Rousseau changed the opinions of his contemporaries on many points. By his eloquent declamations he obliged mothers to suckle their offspring; and, more than this, his doctrines and principles have shaken kingdoms, raised nations against kings, and

cast down the powerful; society has been moved to its lowest depths, and Europe convulsed for fifty years. But I ask you, what has this philosopher gained against whalebones transformed into corsets! Absolutely nothing. In vain did he say that a woman in a corset was destitute of grace, and seemed cut in two, like a wasp: the witicism obtained currency, but the thing remained. Peter I. humiliates and dissolves his formidable force, the Strelitz, scarcely a murmur being heard; he obliges the Russians to shave their beard, and he is seriously menaced; but what would have become of him had he dared proscribe the Russian ladies the use of whalebone, or had in any way meddled with their toilet? The Emperor Joseph II. prohibited the use of corsets, and ordained that criminals only condemned to labor should wear them. All this was useless at the end of a few years.

But what, then, is this formidable power, which carries the day against kings, philosophers, physicians, reason, and common sense? Who is there that is ignorant of it? Who does not know its imperious decisions, its sentences without appeal? In fact, does not *fashion* govern the world; and, as regards your sex, is it not the only sovereign who reigns and governs? Upon those who violate her decrees she inflicts the chastisement of ridicule, and at once all opposition ceases. Reason may raise her voice, but every ear is closed. Reason advises, fashion acts; so that we may easily guess which will prove victorious.

You see, then, madam, why this subject, so learnedly treated by so many doctors, has as yet furnished such unsatisfactory results. I maintain the principle, however, that we must never weary in preaching the good and the useful. Something always results; and in this manner a great evil may become diminished, and a small one reduced to nothing. How many strange customs, prejudicial to health, have disappeared with time and perseverance in good advice! I might cite the swaddling-clothes and bandages of children, the hairy pig-tails, hair-powder, garters, and buckles of men.

What would you say if some one seriously proposed to you to forcibly compress one of your limbs for a long period? They might indeed tell you that the smaller it became, the more elegant it would be; but you would not fail to resist such torture. Besides the pain, the compressed part would soon diminish in size, and waste away more or less completely. The pale and thin muscles would no longer enjoy their natural vigor and activity, the vessels would diminish in size, and the part soon lose its strength and beauty. Now, do you not think that this same compression, exerted upon parts of the body which contain the most delicate and important organs, must be attended with yet more disastrous consequences! These organs, pushed, squeezed, agglomerated together, necessarily lose that development which is indispensable for their action and energy. And observe, this pressure is not made upon any isolated point; it embraces an extensive surface, and just that which corresponds to the organs which are the very source of life. Take a large corset, and measure its height and diameters; and afterwards, when it is tightened to the degree fashion requires and suffering permits, compare these admeasurements with the body of the person who wears it, and you will be astonished at the result.

But where is the use of reasoning or experience for those who are convinced not only that the cor-

*North America and the United States as they are. London: 1826.

set is not injurious, but that it is useful! Who is not aware that a thousand marvellous qualities are attributed to it? It supports the waist, strengthens the body, gives grace to the movements, and so on! As to its inconveniences, these are rarely alluded to, or wholly denied. Far more than this, if the shape is ungainly, the corset will rectify everything; and it even cures a vicious conformation of the spine and chest! No sooner are the fatal words, "She is all one side," pronounced respecting a young girl, than every description of corset fit for the reparation, or at all events the disguise of the evil, is sent for; the fact being, that these corsets, so far from relieving the deformity, assist and augment it, by compressing, enfeebling, and wasting the muscles. No matter; the torture continues, as if this fact were not known. The patience of women in this respect is worthy of admiration. Ask any of them if she is not too tight, but never will she allow it, however extreme her suffering.

It must not, however, be believed that this instrument of torture is of modern invention. More than one poet of antiquity has reproached his countrywomen with its employment. The Greek ladies had their *sefodosne*, and the Roman matrons their *castula*, a kind of small tunic, which was tightened around the waist. According to Ovid, (*Fasti* iv. 147.) the corset would seem to have been in as great request among the Roman girls as among our own. Yet women of other nations reject this article of dress with advantage. Lady W. Montagu observes, that nothing can be more admirable than the forms of the Turkish ladies, who regarded her corset as a machine in which she had been enclosed by her husband, and whence she could not extricate herself. The Spanish women, also, so celebrated for the elegant contour of their shapes, do not employ the corset. It was only during the lifetime of Catharine de Medicis that the custom of wearing the tightened corset was introduced into France.

Some women have discontinued this article of dress, whether from fancy or necessity, without sustaining any inconvenience. It is the long *habit* of wearing it which deceives most. Without it, they do not seem dressed—as if something were wanting. This may be so for the first day or two of the experiment, but at the end of a fortnight the loss would not be perceived; just as in the case of a ring long worn on the finger, or any other object habitually employed. Many young women, obliged to renounce this strange article of the toilet, have quickly found their health improve. The blood has then been allowed free circulation, the lungs full expansion; and the free movements permitted to the body have soon reproduced and preserved that fresh, animated complexion, the principal beauty of the young, but which they so rarely possess in large towns. Surely the preservation of health is of more consequence than the retention of these pieces of whalebone! If a young woman, with the most beautiful form and richest portion, does not possess health, adieu to happiness and pleasure, for her life is strewn with thorns. Exemption from suffering is almost everything in our rapid and short passage through life; but to suffer from one's own fault, because we have desired it—is this not deserving the chastisement which we have braved, but which awaits us?

What is most singular is, that women are aware of the injuriousness of the corset—they instinctively feel that its action is an unnatural and eminently

hurtful one. Here is the proof. If, by accident, a lady falls ill in a crowded assembly of any kind, a general cry is raised by the others, "Cut her lace!" This is done instantly—the compressing machine is opened, air rushes into the lungs, the victim breathes, and recovers; which, however, will not prevent her recommencing the next day; so inexorable and powerful is this malicious demon—fashion.

I am aware that, in appreciating on the one hand these inconveniences of the corset, and on the other wishing to sacrifice to custom, you will ask me if there is not some form of this machine less dangerous than another. It is true that the form and size exert much influence on the results and effects which are produced; so that large, strongly-whaleboned or busked, stiff, inelastic corsets—*cuirasse-corsets*—are more hurtful than small ones; but the degree of constriction exerted is the one simple and essential measure of the degree of mischief occasioned. In fact, the varieties of form are of little consequence. A corset which is exactly adapted to the body, without exerting too much constriction or compression, without impeding development of the growth, or producing any ill effect, does not exist; and this philosopher's stone of a *model corset* will never be discovered, whatever pains be taken. It is impossible to mould the form of a nymph in an apparatus of iron. An evident proof that these machines are hurtful, is derived from the fact, that the endeavor is constantly made to render them as little fatiguing as possible. The material has been varied: they have been constructed in caoutchouc, and transformed into light apparatus permeable to air; and some are capable of instantaneous unlacing. But all this is useless. The grand hygieanic problem of a *corset without danger*, will probably forever remain unsolved. In all there is this dilemma—either the corset is worn loose, and then where is its utility! or it exerts compression, and is then dangerous. Whenever I see these perfidious instruments of torture exposed for sale, I cannot avoid shuddering at thinking of all the evils enclosed within their elegant contours. I can believe that you intend your daughter's corset shall be of a proper form and size, and not worn injuriously tight. But observe, that besides engendering a dangerous habit, the exact point of constriction is difficult to seize. Between the little and the too much there is a mathematical line difficult to be constantly followed. And then experience teaches us that women, and even girls, have a mischievous tendency to tighten themselves more and more, and especially if threatened with becoming somewhat stout.

It is a very unfortunate circumstance, that the inconveniences and diseases—the certain consequences of the abuse of the corset—are never immediate; they are long engendering in the substance of the organs so constantly pressed upon and crushed. The corset does not kill suddenly, like arsenic; therefore it is harmless! Can there be a more dangerous or murderous syllogism! When the physician, who, from long experience, foresees the mischief that will arrive, and informs a woman how injurious is this lacing and girthing herself in, she smiles, declares that he is mistaken for she is not tight, and that habit has rendered her capable of supporting all. She has resisted the effects, and will continue to do so. Her health is good; why should she change her plans? She does not reflect that this condition of pressure is in

direct violation of the laws of nature. The most noble organs are deprived of the play and development essential to their functions. Even the very bones of the trunk and chest suffer under this pernicious influence. To convince yourself of this, have the courage to examine a skeleton, the solid framework of our fragile organization. On the one hand, you see the spine—the solid yet mobile support of the whole animal structure. A multitude of nerves escape from its lateral openings, giving life to the internal organs, and establishing relations with the brain. This spinal column is covered externally on each side by bundles of muscles—the moving power. Now, I ask you whether a corset, worn habitually tight, must not interfere with, and prevent the action of, these muscles and those of the shoulders! On the other hand, observe that the ribs, forming a kind of bony and movable cage, represent a cone, having its apex above, and its base below. Well, the corset acts in a totally opposite direction. It compresses and binds in this base, whose expansion is indispensable for the play of the lungs and the act of respiration. Can there exist a worse or more fatal practice! We laugh at the Chinese ladies; but the deformed and squeezed-up state of their feet does not at least affect the general health. A mother protects her daughter from the effects of the slightest draughts of air, from the least damp, from the rays of a burning sun, and yet exposes her to the dangerous compression of a large corset.

Although all portions of the body suffer, and tend to morbid changes, when submitted to great and more or less prolonged pressure, there are some organs which seem especially destined to endure these evils. Among these are the lungs and heart. It is through their agency that respiration and circulation are accomplished. They are, so to speak, the very roots of life. Now, I ask, what must take place when the cavity containing them is narrowed, and when the extent of their action is limited by the tyrannical exigencies of the corset? The diseases which result are numerous, always serious, and so much the more incurable, as they proceed from a predisposition become constitutional. If you were aware of the fine texture, the delicate network of the lungs, the sensibility of these precious organs, the abundance of blood which penetrates their innermost recesses, there to become revived, you would only be astonished that these diseases were not more frequent still. And yet, will it be believed that women, having the chest thus compressed and narrowed, will read aloud, or engage in singing and declamation! From the most straitened organ the highest amount of action is demanded!

But the chest is not the only organ exposed to this severe compression of the corset. The liver, placed immediately below the ribs at the very point where constriction is greatest, equally suffers. Hence results pain in the side, indigestion, and diseases of the organ, with chronic jaundice. The stomach itself, compressed by the bone of the corset, does not enjoy its natural vigor and extensibility. Hence distaste for food, painful digestion, languor, pallid or pimpled countenance, &c. Soemmering, a celebrated German physician, found a stomach nearly divided into two parts by the excessive and long-continued pressure of a steel-busk. I know well that few women would submit to such torture; but some there are whom no rein or prudence can restrain.

It is for balls, parties, theatres, &c., that interminable preparations for the toilet are especially made, and that the most destructive conspiracy against health is contrived. The lady of elegant form who repairs to these, is girt in every possible manner. Her shoes are as small and narrow as possible; the entire body surrounded by a large and strong corset mercilessly laced; the clasps of her dress maintain the ground already gained; and her girdle exercises no less constriction. We need not mention bracelets, necklaces, &c., which nevertheless exert injurious pressure upon the neck and arms; so that every part of the body is encircled with more or less tight ligatures. Thus fettered and bound up, she repairs to the place of assembly, where the air is contaminated by a crowded company, while the mirrors are tarnished, and the candles melt, in a temperature equal to that of Senegal. Nevertheless, she will remain here for five or six hours, perhaps dancing, or singing in a more or less loud voice. It is not until she has returned home, and removed the instruments of torture, that she can breathe. By a miracle of nature she has not succumbed to efforts which the most robust man could not support for an hour. And yet this is the feebler sex!

From Sharpe's Magazine.

JACQUARD, THE SILK WEAVER OF LYONS.

THE stranger who visits Lyons and becomes acquainted with the manufactories of that great mercantile city of France, is struck by the contrast that he sees there, between the luxurious furniture prepared for the dwellings of the great, and the poverty of those employed in its production.

The silk weaver may generally be known by his pallid complexion, his narrow chest, and his emaciated limbs, which are the natural results of excessive labor and insufficient nourishment; but, thirty years ago, these, his melancholy characteristics, were far more remarkable than they are now. Lyons and its suburbs contain at least ninety thousand artisans, who work from four in the morning till nine at night, crowded into large factories that resemble bee-hives with their tiers of cells. They are full of windows, each of which lights a machine, and, till within the period we have mentioned, these machines, used for brocaded silks, were complicated and difficult to manage, loaded as they were with numberless cords and pedals by which the body was forced into the most distorted and unnatural attitudes. The weaver was mounted on a high stool, and directed the thread of the chain, and formed the pattern, by striking out his legs from right to left; but, besides his part of the work, one or two others were necessary to guide the cords and pedals; and these were usually young women or children, who were obliged to preserve the same painful attitudes through the whole day, and they frequently became deformed for life, and more often still they were hurried to the grave. Many, who witnessed so much misery, longed earnestly for such a revolution in the state of mechanical science, as should free the children from work to which their own health and the moral feeling of their parents were alike yearly sacrificed; but amongst all who pitied their sufferings, who had the power to relieve them! The honor of accomplishing this task was reserved for Jacquard, an unpretending artisan, the genius of the loom, the child of the people. Florence and Venice, with all their boasted improve-

ments, acknowledged the superior skill of the poor working man, and bowed down their industrial banners at his feet.

Joseph Marie Jacquard was born at Lyons on the 7th of July, 1752; his father was a master weaver of gold and silken tissues, his mother was a pattern-reader, another branch of the same trade; as for himself, he was apprenticed to a bookbinder, and proved a clever and tasteful workman. At the end of some years he married, and, having inherited a small house from his parents, he established himself as a straw bonnet manufacturer, and was succeeding very well, when the French revolution broke out, and brought his prosperity to a close. In 1793, during the memorable siege which Lyons so nobly sustained against the republican armies, his house was burned to the ground, and, when the savage proconsuls came with orders from the convention to decimate the inhabitants whom the brutal soldiery had spared, Jacquard's name was on the proscribed list, and he found himself obliged to leave his native country. He owed his safety to a son he had in the ranks of the republican army. This young man, listening only to the dictates of filial piety, dressed his father in uniform, inscribed his name on the list of the battalion of volunteers to which he himself belonged, and, placing a musket in his hand, marched with him to the French frontier. They reached the borders of the Rhine together, but there Jacquard had the great misfortune to lose his beloved son, who fell by his side, struck by a cannon ball, and soon afterwards expired in his arms. When France was restored to some degree of order and tranquillity, Jacquard, wearied with his military profession, for which his advancing age began to unfit him, was desirous to return to his former quiet life; he had found protectors amongst the very men by whom he had been proscribed; and he now established himself once more at Lyons, and gave up his time to the study of mechanics: a strong inclination led him forward in the pursuit of knowledge, and circumstances developed still further his natural genius.

The peace of Amiens had reestablished communications for a short time between England and France, and during this season an English newspaper happened to fall into the hands of Jacquard; he read there the announcement of a prize that was to be bestowed by the Royal Society in London for the construction of a machine for making fishing nets, and also for the nettings used on board ship. From that moment he became conscious of his vocation, and thought of nothing but how to fulfil the required conditions. After groping long in the dark, he discovered the secret of the machine; but the satisfaction he derived from his success was the only reward he chose to receive; the difficulty once overcome, he thought no more about it, and contented himself with giving a piece of the net he had woven to one of his friends. This friend, however, showed it as a curiosity to several persons, and it passed from hand to hand, until it was sent at last to Paris by the Lyonnese authorities.

Jacquard had long forgotten his invention, when, one day, to his great surprise, he was summoned before the prefect of Lyons, who asked him whether he had not turned his attention to the manufacture of nets on mechanical principles. Jacquard did not remember the circumstance to which the magistrate alluded, till the identical piece of net was produced that he had given to his friend. The prefect then desired to see the machine on

which it had been made. Jacquard asked for three weeks wherein to repair and complete his apparatus, which then lay neglected in a corner of his dwelling; at the end of that time he carried it to the prefect, who was able himself to count the number of meshes, to strike the bar with his foot, and to continue the web that was already begun.

When he had recovered from his astonishment, he dismissed Jacquard, assuring him that his name would soon become known. The machine was sent off to Paris, and presently an order arrived that Jacquard himself should be sent after it. This order was so peremptory that the authorities of the town, mistaking its real import, laid hold of the honest artisan as a conspirator, and treated him accordingly; without allowing him time to go home and make preparations for his journey, he was hurried into a post-chaise and conveyed rapidly to Paris, under the escort of a gendarme. Jacquard had never seen the great capital. On his arrival, he was taken to the *Conservatoire des Arts et Metiers*, and the first persons he saw there were Bonaparte, and his minister, Carnot; the latter, addressing him with the blunt severity which was natural to him, exclaimed, "Is it you, then, who pretend to do what with Heaven is impossible, make a slip knot upon a tight thread?"

Jacquard, abashed by the presence of the master of half Europe, and still more so by the manner of his minister, only answered by setting his machine to work, and soon showed the possibility of what they had thought incredible. In this strange way was Jacquard's first essay made known. Napoleon, who knew how to appreciate genius wherever he found it, encouraged him, and promised him his protection; and in a few days after this interview, he was regularly installed at the *Conservatoire des Arts et Metiers*.

Jacquard's joy may well be imagined when he found himself in the midst of the wonders of art, and enabled to pierce through the arcana of mechanical science, which, hitherto, for want of books and of education, he had had no means of doing; he had now the experience of others to stand upon, and the keys of knowledge were in his hands for fresh experiments. He soon set to work, by order of government, upon machinery which was to produce brocaded silk, at less cost, and more easily, than any then known; he combined two principles which were due, the one to the celebrated Vaucanson, and the other to Talson, the engineer, and succeeded beyond all expectation.

This famous machine, which was destined to immortalize the name of its inventor, appeared at the Exposition at Paris, in 1801. The first consul, perceiving at once the advantageous change which it was about to produce in the state of French industry, rewarded this admirable discovery by a pension of 6,000 francs. The jury, however, whose province it was to judge of the utility of all such inventions, showed themselves less clear-sighted, and awarded only a bronze medal to Jacquard, "the inventor," (said the report) "of a machine by means of which one workman the less would be required in the fabrication of brocaded tissues."

Less wonder will be excited by this verdict of the Parisian jury, when we further relate, that at

* "Un noué avec un fil tendu." This machinery has of late years been applied to lace, and Nottingham owes to it the chief successes of its trade.

Lyons, the whole face of whose commerce was to be entirely altered by Jacquard's discovery, no gratitude and no admiration were called forth by it. He returned there with his machine, and found himself, like Galileo of old, overwhelmed with suspicion and obloquy. He, the man of the people, the child of the loom, was portrayed in the darkest colors to the ignorant and passionate multitude as their inveterate foe; one who, for his own ambitious and selfish purposes, was about to ruin their craft, and to increase the distress of their families.

From all parts of the district furious mobs assembled against him, and his life was three times in imminent danger; this blind hatred rose at last to such a height that the Lyonnese authorities gave way before the storm; and the new machine was broken to pieces by their orders, in the great square of the town, while the people loudly applauded the ridiculous scene enacted before them.—“The iron” (to use Jacquard's own words) “was sold as old iron—the wood, for fuel.”

It was not till France began to feel the fatal effects of foreign rivalry, that the silk-weavers of Lyons regretted the narrow prejudices which had prevented their reaping the benefit themselves of Jacquard's discovery; they then perceived that they had destroyed the machine which would have spared their labor, and infinitely multiplied their resources. In the mean time a few more enlightened manufacturers, among whom were Dépouilly and Schirmer, having adopted the machinery of Jacquard, had so abundantly profited by it, that its fame spread rapidly through Switzerland, Germany, Italy, and America, where a new opening to industry, and a fresh means of increasing wealth, were joyfully hailed.

Manchester, essentially a manufacturing city received the Jacquard machinery, in 1813, with popular enthusiasm; and the name once denounced in every factory is now honored throughout Europe. By slow degrees did this reward reach Jacquard; he had it, after a twenty years' struggle against ignorance, envy, and selfishness; and all that time he knew that he had succeeded, that he had created a mighty agent for the prosperity of his native country, and that a day would surely come in which he should see it at work. He was gifted with perseverance and rectitude of purpose in proportion to his genius; his disinterestedness was such, that he would take out no patent to appropriate the benefits of his discoveries, and he constantly refused the magnificent offers made to him by foreigners; simply but firmly he refused to devote to them the services he believed were due to France, and waited patiently till she should be ready to receive them at his hands. We have seen the humble mention made of him with the bronze medal he obtained in 1801; it was not till 1819 that a better informed jury proclaimed the superiority of his machinery over the costly and unhealthy processes which it was intended to replace, and awarded to him the silver medal; the cross of the Legion of Honor completed this national recompense.

Towards the close of his life, Jacquard, having lost his wife, who had been a sharer in all his anxieties, and for whom he had the strongest affection, retired to the pretty village of Oullins, about three miles from Lyons, and took up his abode in a small house, the use of which had been left to him by will, for his life. There he received the visits of many illustrious travellers; statesmen, and men of

letters came to converse with him, and to wonder that a man, whose reputation was European, should be found spending his old age in solitude, and dividing his time between religious duties and the cultivation of a small garden. He died on the 7th of August, 1834; he never saw his great invention appreciated in his native city, and yet he had lived long in hope, and in his latter days in perfect peace; his work was done, and at eighty-four

“The weary springs of life stood still at last.”

The morning after Jacquard's death, a few friends, and a very small number of admirers, accompanied his remains to the cemetery of Oullins, and buried him by the side of Thomas, the academician; the inhabitants of the village consecrated a marble slab in their church to his memory, which mentions simply and modestly his pure life and his industry.

In his lifetime, like most other great men, Jacquard found little but persecution, neglect, and indifference, in his own country; it was only after his death that he was really known, and his memory duly honored. The municipal authorities at Lyons opened a subscription for the purpose of raising a statue of the celebrated mechanic, and, while the city owed chiefly to him its yearly increasing wealth, it was long before many thousand francs were collected. The statue of Jacquard, from the chisel of Foyatier, was raised at last on the 16th of August, 1840, in “la place Sathonny,” where had been placed already the bust of the Abbé Rozier, another benefactor to the city of Lyons.

It is refreshing, in the midst of the feverish strife of mere opinion, to turn to the example of Jacquard. Humble and prosaic as his life may at first sight appear, he stood alone with his genius, surrounded by ignorance and tumult, waiting patiently until his discovery should be permitted to produce the great results in commerce which it could not fail of effecting when once it was fairly tried. While doubtless a thousand voices were raised to procure a hearing for fresh schemes and new doctrines in science, he expected silently the hour in which his knowledge should be most usefully employed for the benefit of his country. Jacquard and his machine were alike realities, and the world has now acknowledged them as such.

From the N. Y. Commercial Advertiser.

THE CONDITION OF ENGLAND.

In employing this term, now one of frequent recurrence in the parliamentary debates, we do not mean either the physical, the social, or the political condition of the country as existing at the present moment, but rather its condition in the three particulars specified, and with more especial reference to the future. For we conceive the British islands, or at least that portion of them known specifically as England, to be now in a state of change and progress, the issue of which cannot be anticipated without a strong and lively interest. In fact, we know of no more interesting subject for contemplation than the probable course of events in that great country, among that remarkable people, in the next twenty years.

We believe that a revolution is going forward there; a revolution, vast, radical, thorough, and

invested with every attribute entitled to the respect and admiration of mankind; for it is a revolution founded on and carried forward by an intellectual movement solely, unaided and untarnished by any employment of force whatever—unless, indeed, we except that very potent instrument in human affairs, the force of circumstances. It is a revolution originating in better and truer views of human rights and the purposes of human existence; views which have long been held by individuals in considerable numbers, which have often been enunciated with more or less of force and distinctness through the press, but which are now only beginning to make themselves known, and felt, and acknowledged, through all gradations of society, and, what is more, are beginning to adapt themselves to great and powerful interests, through whose coöperation they must inevitably succeed in working out their legitimate effect.

And here we may incidentally remark that England is not alone in this matter. The movement now working in her bosom is seen and felt also throughout the continent of Europe. We see its operation in the tardy and fearful, yet still progressive, constitutional manifestations of the Prussian monarch; in the predominance at which productive industry is arriving in France; in the general stir of thought and opinion, quiet and moderate though it be, throughout all Germany; even in the successful efforts of the Russian autocrat to liberate the people of his vast empire from their subjection to the nobles; and most conspicuously and remarkably in the liberal course of policy and government adopted by the new ruler of the papal empire—a course so unexpected and unexampled that we may almost venture to call it providential.

But the "condition of England" is the subject with which we have to do, and this will demand more space than we can afford in a single article. The idea which we wish to present is briefly and forcibly expressed in a single phrase, for which we are indebted to a writer in the *National Intelligencer*—"Man has been made too cheap in England." This is as true as it is expressive. Man has been made too cheap; and the principle of the revolution, which we have asserted to be in progress there, is, that a truer estimate is beginning to be placed upon the value of man.

The depreciation of this value has its origin so far back as the times in which the feudal system prevailed. Under it, and especially under its administration by the Norman conquerors, the mass of the people—the serfs or villeins—were in fact slaves to their feudal lords; the little estimation in which they were held is made familiar to us by the chronicles that have come down to us from those old times, and by the works of fiction—true in their representation of manners, though fictitious as narratives—for which those chronicles have furnished the material, as for instance the *Ivanhoe* of Walter Scott. We see there that the serf or bondman occupied, in the estimation of his lord, a place no higher than that assigned to the swine and cattle of which he was the keeper. The value of the human animal was just that which could be assigned to him as a laborer in the field for the benefit of his lord, or as a man-at-arms to kill or be killed in his lord's battles. Man was very cheap in those days.

In the progress of ages the feudal system passed

away; England became a great commercial nation, and then another cause appeared to keep down the price of man. It became the interest of capital to reduce the price of all commercial fabrics; and it so happened that the tenure of land, coöperating with the vices of the parliamentary representation, enabled capital to control the price of human labor, and sacrifice it to the necessity of making cheap cottons, woollens and cutlery. For the sake of producing these at the cheapest rates man was made cheap also; that is, the physical condition of the laboring man was ground down to the very lowest point at which existence can be sustained.

His moral and intellectual condition was of course affected in a corresponding ratio; for the man who is held at a cheap rate by those who control his means of living, necessarily holds himself at a cheap rate, and does indeed become of minimum value, for want of time and means and opportunity to work out the true aim and purpose of his being. It is notorious, and has often been said, that the English operative of the present day occupies a station very little if at all higher, as man, than that which was held by his ancestor under the sway of the Norman noble.

Now the first great step has been taken toward effecting a complete change in this condition of the Englishman. The abolition of the corn laws—which were a relic of the feudal system—has secured an improvement in his physical condition. It has put a higher value upon him. Farther improvements will follow of necessity, for revolutions of this kind never go backward. And with improvement of his physical condition will of necessity come improvement of his moral and intellectual; that is, a still greater enhancement of his value.

The time will come, and we entertain no doubt that it will come soon, when he will no longer be sacrificed to cheapness of manufacture. A true estimate of his value, not only as producer, but as consumer also, will prevail; he will be too costly for destruction, whether by musket-ball, or coal-mine, or factory toil. The shrewd remark of the Bristol Quaker is in the hearts and minds, now, of the English people at large, and of their law-makers and rulers, though when uttered it was only laughed at as an odd saying. It was at the time of the Bristol riots. The Quaker's partner in business belonged to a yeomanry corps which was ordered out to put down the rioters. "John," said the Friend, while his partner was donning his regimentals, "John, take care thee does n't cut down any of our customers."

There is a world of significance in that saying; and we leave our readers to meditate upon it, if they choose, until we find time to continue this article.

TRUE HUMILITY.—If we can forbear thinking proudly of ourselves, and that it is only God's goodness if we exceed other men in anything; if we heartily desire to do all the good we can to others; if we do cheerfully submit to any affliction, as that which we think best for us, because God has laid it upon us; and receive any blessings He vouchsafes to confer upon us, as His own bounty, and very much above our merit; He will bless this temper of ours into that humility which he expects and accepts.—*Lord Clarendon.*

From the Church of England Quarterly Review.

Truths and Fictions of the Middle Ages. The Merchant and the Friar. By SIR FRANCIS PALGRAVE, K. H. London: Parker.

THE "past" is a word fraught with deep meaning and interest: to the imaginative it suggests innumerable visions of varied forms; to the reflective, lessons of wisdom and materials for fecund thought; whilst, forming, as it does in that which it recalls, but one link in the great chain of eras that unites the first enunciation of God's mighty purpose of mercy to its final consummation, its chiefest use is to furnish in its contemplation grounds for wisely judging the present and anticipating the future.

It has been well observed that whilst the Almighty is most beneficent, he is also most frugal, teaching his creatures, by that which may be known and read by all men of him in the works of his hands, that the exercise of true liberality depends upon provident care, and consists in the exact proportion of the supply to the necessity. All nature is pregnant with this truth: there is not a leaf that falls nor a flower that fades to waste; not a form that seems to perish, that does not, in its ashes, contribute to the sustenance of life: there is not a drop abstracted from the ocean that does not yield a blessing; not a particle of inanimate matter that has not its distinct use, and that does not, in its place, help on the great work of reproduction. Waste and want are words, indeed, which have no place in the vocabulary of divine providence; there is no necessity for which there is not a supply—nothing which in the constitution of the supply has not its proper function. The seasons come and go, noiseless in their change and mighty in their operation; each has its work, to see that nothing be lost. What winter kills contributes to the nourishment of summer life; whilst the seed that falls in autumn and seems to perish revives in other forms in spring. Frugality and mercy are indeed twin sisters: their gracious labor is one of love: the one saves that the other may dispense: without provident care the necessities of nature never could be met, and from all that dies a new existence springs. "Gather up the fragments that nothing be lost," were the words of our blessed Lord, and they contained no mere passing admonition, but a great and glorious truth: they were, in their place, a revelation of the mind of him who created nothing without a purpose, in whose sight nothing perished, and who has so wondrously ordered all things and their goings as that there should be neither loss nor waste. They who dream of annihilation have neither eyes to see nor minds to understand, and it is only "the fool" who "saith in his heart there is no God;" for deeper and mightier truths even than that of the wondrous supervision of divine providence are taught in the decaying seed and substance. He who looks intelligently upon them sees a germ of future existence, and counts upon their resuscitation in forms of vigorous beauty. He knows that, "except a corn of wheat fall into the ground and die, it abideth alone; but if it die it bringeth forth much fruit;" and when he sees it die he looks in hope for the promised life. Thus, in all things which surround him, he learns not only that in their decay there is no waste, but that out of death comes resurrection life. Whilst he gives faith to the revelation of "life and immortality" which the Lord has "brought to light," he beholds in all that nature brings before his eye an unfulfilling evidence of the reality of that great event which shall some day

pass upon the countless dead, and in the sure and certain hope of which, moreover, holy church hath taught him to part for a season with those who have fallen asleep in Jesus.

So is it also with the history of man—the events of the past are pregnant with moral life for the future. Every one of them has had its use in the social system, and has proved a seed of fruit for the harvesting of other generations. It is our part to use the knowledge which they bring to the fulfilment of its rightful purpose, neither wasting it in the creation of pleasing visions or recreative fancies, nor passing it by as too cumbersome for the hastier progress of modern energies. History steps us in our course through life to point us to the paths which our fathers trod and the deeds which they did; and then come hope and wisdom to lead us onward and teach us how to avail ourselves in our forward course of what we have seen. To stop not at the bidding of the one, or to loiter where we are stopped, is alike unwise—in other words, no knowledge of the past or reflection on its history can be profitable which does not furnish us with elements of moral strength and wisdom for the future. The fulfilment of man's destiny is in progression, the proper development of which, like the unfolding of a flower, is manifested in the varied forms of great and primary principles, increasing in beauty as they approach the term which God has appointed to them for the bearing of the fruit ordained to each. No man can properly fulfil his place, and do the work allotted to him in the present, who does not with two-handed strength and skill hold the past and the future—the past for the wisdom which it gives, and the future for the hope which it contains. No man is fitted for the active and practical duties of life who dwells with the dead; nor can he, on the other hand, deal wisely and kindly with those around him, if he blot the memories of those who have gone from his mind, boast in his ignorance of their virtues, or be careless of the sources of their failings; whilst for the foundation of every solid edifice, whose uses are for other generations, the deepest lessons are to be learned in the contemplation of the structures which our fathers built. There are many, however, who in our days mistake the musings of poetry for the reflections of wholesome philosophy; who, in their contemplation of the past, sit down and weep over the visions which they bring to being, till all strength for action is gone: there are others, again, who despise the uses of poetic thought, and have no sympathy but for utilitarian materialisms. To them the past has neither a charm nor a lesson; to them the future is nothing but a speculation: they are, as the word goes, "*practical men*," who neither know nor care for anything beyond present realities, who judge all the spiritual phenomena of humanity by hard statistics, and measure hearts and minds by a coarse arithmetic of profit and loss. Neither the one nor the other are fitted for the exigencies of the times, which require, for the supervision and right understanding of all which they produce, a deep acquaintance with the spirit and mind of man, in whatever form they may have been developed—in whatever way it is possible that they may yet be manifested.

There is no lack of learning in the age in which we live. It is, indeed, wonderful how the secret sources and springs of ancient knowledge have been traced out and laid bare to the gaze of all—how the customs, modes of thought and habits of life, ways and works of our ancestors, have been

placed, as it were, on a stage of exhibition, that all who choose may become conversant with them. From the mysterious days of swarthy Egypt, with all the wonders of her occult science, down to the age when the mail-clad warrior gloried in his strength, or the merchant prince in his argosies, is now reduced to the form of a familiar tale; and books of elementary knowledge deal as unceremoniously with centuries, and treat as knowingly of their events, as the smaller histories of our school-boy days dared to do with the subject of the French revolution or the geography of the provinces. Etruscan monarchs, the mighty contemporaries of the shepherd king of Israel, have been gazed at for a single moment in their tombs, in all the glorious panoply in which they were laid to take their sleep for ages: the wanderings and sufferings of God's ancient people have been deciphered in what they have written in their way; the very grain which the builders of the pyramids have handled is growing in many parts of Europe; the food of which they ate, the chairs on which they sat, the costumes which they wore, all may behold who choose; whilst, with the days of Norman William and his rapacious host, the polished Saracen and the stern crusader, the stately knight and mitred abbot, the wily scrivener, the cowed monk and burly friar, we are now as familiar as with our kith and kin a few degrees removed. The imagination has, indeed, but little to do in recalling a vision of the past: knowledge has furnished her with all the material she can need, and that so abundantly and minutely as well nigh to render her own legitimate occupation of mental creation useless. She has only to produce some of the many forms with which the memory is stored—to bring about them the appliances of scenery and dress—to abstract from them the coarser and sterner elements which tell of discomfort and oppression if she be in no truthful mood, and retain such as speak in all their rude development of high resolve and kindly feeling—and she will have at once before her for her contemplation a pleasant picture of other days and their doings, wanting nothing but life to make it a reality.

After all, however, the picture is but a *picture*—a representation of life and not life itself: it is the vision of what has been, but which will never be again: of an age which, having fulfilled that part of God's great purpose allotted to it, has passed away and become as the seed to the plants—the germinating principle of other forms—in which, though the fruit of the past is seen, the *past itself*, as it was, will never be reproduced. It is a great error to think otherwise, and yet it is the error of the day—the error into which many gentle minds have fallen, wasting the energies which present exigencies so much need in fruitless efforts for the revival of that which, in its past form, is forever dead; or spending them in melancholy mournings for that which ought not to be mourned for. The matter which *perishes* has fulfilled its purpose and obeys, in its decay, the law of its being; whilst the spirit that was created to survive is still existent, though in some form which, for lack of discernment, we do not readily recognize. It is not God's purpose to reproduce the past, but out of the past to bring forth the future: this we may learn from the contemplation of that which is within our own experience. The man is the same as he who was the child; but, once attaining to manhood, it is impossible that he should be ever a child again. Old age, it is true, is sometimes called a second

childhood; but, apart from its feebleness, the one has nothing in common with the other; and this very feebleness is that of the plant, not newly sown, but worn out in the production and bearing of fruit. It has a knowledge and an experience which childhood of itself never can attain; and, whilst to learn is common to all, to unlearn is an impossible process. Yet this is needed to make the old man once more in all respects a child, and throw the present into the past. It matters not, therefore, whether this error manifest itself in futile efforts to recall the practices and spirits of patristic ages—to bring back the cowl of monachism and fondly fancy the system will come with it—or to revive the ancient sports and pastimes of rural manhood: there is something abroad which will interpose its veto. The spirit of the age, which now is, will not yield to that of the ages which are gone; and, though there is much that is pleasant in the memory of the departed, there is too much of serious import in that which is upon us and before us—too much of coarse materialism and stern reality to suffer us to lose one atom of the strength we need for present strife in vain repinings for the past or fruitless efforts for its revival. Let any one, for a moment, reflect upon the progress of the last sixteen years. It is just that period since the first railway in England, in its more developed form, was opened; when the lamented promoter of the scheme met with his death in the inauguration of a system which he foresaw would exercise so great a power on the destinies of the world. And now all Europe is interlaced with iron roads; the ends of the earth will soon be brought together; there will be hardly a land to which there will not be means of ready access—hardly a clime which shall not own beneath its influence men of every speech brought together as to a market place. Who can foretell the consequences? A greater social revolution than that which awaits us has not been recorded in the annals of time. Haste in thinking, haste in action, are already amongst the characteristics of the age; and the power and velocity of steam are but the symbols for the physical of that which exists or is coming forth in the moral. It were a mad effort to endeavor to force the speed of modern locomotion back to the dilatory processes of our fathers—it is as mad an effort to seek to restrain the hastening spirit of this age to the staid and stately paces of the past. This love of railway motion is the index of the mind of the day, at once an effect and a cause: an effect of the immediate onward progress of man to a given end; and a cause fruitful in result of the increasing ratio in which all moral development is taking place. Let any one judge of that which is to be by that which is—let him, by the simplest arithmetic, try to ascertain, from the data which he has, what may be the probable amount of human progression in the course of the next few years, and he will at once admit that it is as unwise as it is impossible to seek in the ages of the past fitting garments for the growing and gigantic forms of the present. Whether all this be for good or evil is another matter: we deal with facts, and we think it is with facts that all must deal who would come to any right conclusion as to what is or what may be.

It is very possible that there is no greater amount of happiness amongst men now than there was in former days. A vision of feudal times has in it many forms of poetic beauty; but it has, also, its darker shadows. Noble daring and warrior

strength, the glorious panoply of war, the pageantry of knighthood, manhood in all the fearless development of its hardy energy, are there; but grouped with them are the wrongs of the "villain," the shackle on the hands of the serf, the rapacity of the noble, and the suffering of the poor. It is no difficult task for fancy, in gazing upon the ruined hall or castle of other days, to people them with life, and so create a picture of that which she deems them to have been in their primeval strength and glory; but she will too often forget the real in the beautiful, and omit, in her creation, the elements of discomfort, misery, and abject dependence, which too surely existed. Nevertheless, we apprehend there were many things tending to ameliorate a condition which so many are apt to look upon with contempt. If feudality had its oppressive, chivalry possessed its amenities—if the church was dark, it was hospitable and mindful of its poor; and it would be hard to prove a worse estate for the laboring classes than that which they now endure; where, in the midst of boundless luxury, privation is the rule and not the exception with the working man, where death from starvation is a common occurrence, and where the church's charity has been exchanged for the iron rules of a cruel law and its merciless administration. The truth, however, is still the same, that whoever would be the benefactor of his age must be so, not in forcing back its spirit to suit the forms of other days, but in preparing fitting garments for its enlarged capacities, its increasing wants, and energies in these.

For every age of man's life there are knowledge and strength proper thereto. Childhood has its hornbook and its primer, manhood its treatise, and old age its meditations. In like manner the hand of the strong holds up the tottering infant, the bond of brotherhood nerves the man, and the feeble step of the declining is made sure by the tender care of kindred or of friends. So it is with the ages of the world; they have had their infancy, they have their prime, and they shall have their final maturity, full of all knowledge and ripe with all meetness for the consummation of God's great and mighty purposes. He, ever in his mercy, provides most amply for the necessities of these several conditions, raising up men for the times in which they live, and furnishing his church, ordained to be the light of the world, with fitting food and wisdom for the nourishment and instruction of her children. The great mistake which men have made is this—on the one hand supposing that there is no light in the sanctuary available for the guidance of the world in great moral and civil questions; on the other, in forgetting that, as she is a body of life, her strength is fitted to her day, the very law of her spiritual existence being increase of that strength according to her necessity. Hence men have dreamed of her as though she were dead for all present purposes, and men have gone to the fathers for the light they should have sought of God in existing ordinances, or have altogether cast the church aside as a mere appendage of state pageantry, or an incorporation of speculative theories. Some talk indeed, nay more, some writing there has been of development; but of such development as the corruption of death engenders, rather than of that which properly results from healthful life. The miserable abortions of Romanistic folly and superstition have been gravely propounded to the world as the glorious aspirations and ripened knowledge of the church of Christ,

made meet for her inheritance of light and prepared to share the throne of her Lord. This is sad enough, when coming from born Romanists themselves; but issuing from neophytes, who have been, it is to be presumed, conversant with their Bibles and accustomed to large and comprehensive freedom in examination, it is a striking proof of the magic process by which, the moment submission is made to Rome, every fruitful capacity is rendered sterile and barren to the seeds of truth—every power of the mind is fettered down in servile subjection to a narrow system.

We have been led into these remarks in perusing the book whose title stands at the head of this article. It is a book full of interest, combining amusement in the amount of information afforded with ample materials for reflection. The crudeness and the quaintness of the antiquarian are visible throughout; but its chief value is in the enunciation of principles of great truth and wisdom. Whatever rust there may be is the rust of gold; and if the knowledge which it contains smells somewhat of the dust of the book-shelves, we are well assured that it is the result of deep research, and that of the author's own labor, and not of second-hand purloining.

Sir Francis Palgrave has chosen as a vehicle for the information which he gives, and the reflections which he makes, some fictitious events (which can hardly be called a tale, but rather detached and graphic scenes) in an epoch fraught in all its associations with the deepest interest. He has put his matter into the form of an imaginary conversation between two of the most illustrious men of their day—the fathers of their class, as far as that fatherhood can belong to the middle ages—and the pioneers in the two broad paths of the knowledge which comes from seeing and conversing with men, and that which comes from tracing physical phenomena to their primary principles. His heroes are Marco Polo, the Venetian traveller, and Roger Bacon, the Franciscan friar. It is difficult to conceive a more felicitous choice for the purpose which he had in view. In the one, he had the exponent of the energy and enterprise which made merchants princes; in the other, the leader, in that spirit of hardy inquiry, that not only first broke down the hedges and fences with which ignorance had surrounded the Romish domain, but ultimately brought the full light of truth to bear upon the structure which stood therein. Marco saw nearly as much of the world as has been seen in latter times, and penetrated farther than most modern travellers; and though his relations were treated at first as visionary creations, yet subsequent experience has with few exceptions verified them.

We are not, however, aware that Marco ever saw England, and we think that Sir Francis has forgotten that he and the friar could hardly have come together, seeing that Marco did not return from his service of Kublai Khan till 1295, about which time, according to the popular tradition, Bacon must have been laid to sleep with his fathers. This literary license, however, we presume must be permitted. Both Marco's father and uncle, Nicolo and Maffeo, had preceded him. With a spirit of enterprise that is not generally thought to have belonged to the civilians of those days, they, having heard that a market for costly articles of easy transport existed amongst the western Tartars, determined to avail themselves of it. They accordingly converted their property into such articles of jewellery as they understood to be in de-

mand about the year 1254, started on their perilous journey, and eventually succeeded in reaching Bokhara, at that time a city of the east celebrated for its commerce. Here, it appears, that they met with a Tartar envoy on his way to Kublai Khan, the conqueror of China; and, being persuaded by him, they accompanied him to the court of that prince. After some stay they returned to their native country, which they reached about the year 1269; and it was not till about two years after this period that they again set forward on their journey, accompanied this time by Marco, who was between seventeen and eighteen years of age. Up to this period Marco had never seen his father, and, having lost his mother shortly after his birth, had been dependent upon the care of others, who, as the sequel sufficiently testifies, had not been negligent of the trust. The Poli, it seems, were of a noble family, and as was then the fashion in Pisa, Genoa, Florence, and the other commercial states of Italy, eagerly engaged in mercantile pursuits, without fear of taint to their blood or disgrace to their lineage. To this probably is owing the union of taste and wealth which afterwards distinguished the Italian nobility under the rule of the Medici, the refinement of aristocratic breeding directing and influencing the expenditure of the gains which commercial enterprise had won.

In speaking of Marco we must not, however, forget an older traveller than he into the regions of the east, William de Rubruquis, as he was pleased to call himself, whose real name was Ruysbroeck, a friar, who, in the spirit of the times, undertook a pilgrimage to the Holy Land, where Louis IX. was then detained a prisoner by the Saracens. This pious monarch had heard of a great Christian nation and a certain Prester or priest, John, who ruled them, as existing in the wilds of Tartary; and Father William formed one of a commission of monks despatched by the king on a mission of inquiry. Of Prester John and his imaginary subjects, it is almost needless to add, he saw nothing; but he found at the court of one of the Khans Christian missionaries, witnessed a great deal which must have opened his own mind and that of his companions—no small benefit to society, considering their character and the age in which they lived—and bestowed upon the world an account of his travels in the shape of a Latin letter to his patron, which was partly done into quaint English by Hakluyt nearly four centuries afterwards, and subsequently given to the public by Purchas in his "Pilgrimes."

It is worthy of remark that the accounts of these two travellers do not materially differ; and, though there were many then, and have been since, sceptical on the subject of the facts which they related—though Marco was called in derision "Old Million," and became a subject of burlesque in pantomimic effigy to the Italian populace of succeeding generations—yet, as far as we know, subsequent experience has confirmed their statements and borne honorable testimony to their veracity.

But it is time to turn to the friar, glorious Roger! whose wondrous feats and brazen head were the familiar subjects of our nursery knowledge. He was a great exception to his day, which, notwithstanding Mr. Maitland's clever defence of it, we must still continue to consider a dark one; for, whilst posterity reaps in many a way the benefit of his labors, the common tradition concerning him has perpetuated the ignorance of the Romish Church in the legend of his magical skill: both he

and Albertus Magnus of Cologne passed for dealers in the black art; whilst poor Roger, at the age of sixty-five, paid the penalty of his great knowledge in an imprisonment which lasted until near the close of his life. This imprisonment, it is said, he owed as much to his character as a reformer as to his reputation as a magician; since he did not hesitate boldly, upon every fitting occasion, to reprove the ecclesiastics of his day for their sloth and ignorance. It is recorded of him that he expended no less a sum than two thousand pounds* in the course of twenty years in the purchase of rare works—a wondrous munificence for such an one as he—and at once a proof of the scarcity of books, and how highly he prized the knowledge which he sought.

Of this scarcity there are some curious instances on record; we will quote some of them: "In a close roll, dated 29th of March, 1208, king John writes to the Abbot of Reading to acknowledge that he had received, by the hands of the sacrist of Reading, six volumes of books containing the whole of the Old Testament." The receipt is also acknowledged of "Master Hugh de St. Victoire's Treatise on the Sacrament;" the "Sentences of Peter the Lombard;" the "Epistle of St. Augustine on the city of God and on the third part of the Psalter;" "Valerain de Moribus;" "Origen's Treatise on the Old Testament;" and "Candidus Arianus to Marius." The following month the king wrote to acknowledge the receipt of his copy of Pliny, which the abbot had in his keeping. Now, this is a truly magnificent collection for the period, and the care which is observable in the enumeration, together with the formality of the king's receipt, shows how highly it was prized. In like manner, there are similar documents of the reign of Henry III., which show the estimation in which the library of the new chapel at Windsor, consisting of eight books, was held: and the value of a certain volume entitled "The Exploits of Antiochia and of the Kings and Others," at that time in the possession of the Knights Templar, and in the custody of R. de Sandford, Master of the order in England.

Henry, in his "History of Great Britain," relates many instances of the costliness of books in the beginning of the fifteenth century; by which time, however, it would appear that the scarcity, and even the price of them, had greatly diminished, if it be true that the Duke of Bedford, in the year 1425, bought the royal library of France, collected by the fifth and sixth Charleses, and consisting of nine hundred volumes, for one thousand two hundred livres. Another proof of the value of books in the middle ages is the care that was taken of them by securing them with chains to the places where they stood—a custom which continued to be observed in many libraries so late as the beginning of the eighteenth century. A curious instance of this is mentioned by French antiquarians, where, when a priest named Henry Beda, in the year 1406, bequeathed his manuscript breviary to the

* It is hardly fair to allow this statement to stand unqualified. It is what is related in the "Encyclopædia Britannica;" but Chalmers says that the money was for the most part contributed by certain members of the University of Oxford, and expended by him, as well in the experiments which he made, and the construction of the instruments which he invented, as in the purchase of books. Still, supposing him to have spent but the half or quarter of that sum for the latter purpose, it shows the estimation that was put upon them and their scarcity.

church of Jacques-la-Boucherie; he left at the same time, to William L'Exale, the churchwarden of the said church, the sum of forty sous to pay the expense of having a cage made, in which the breviary might be kept, to prevent its appropriation—or in plainer words, its theft—by any of the readers whom it might attract.

Robertson, in proof of the assertion that the middle ages were ages of great intellectual darkness, says—"The price of books became so high that persons of moderate fortune could not afford to purchase them. The Countess of Anjou paid for a copy of the Homilies of Haimon, Bishop of Halberstadt, two hundred sheep, five quarters of wheat, and the same quantity of rye and millet;" and he quotes as his authority the "*Histoire Littéraire de France, par les Religieux Benedictins.*" He adds also, on the authority of Gabriel Naudé, in his "*Addit. à l'Histoire de Louys XI., par Comines*"—"Even so late as the year 1471, when Louis XI. borrowed the works of Rasis, the Arabian physician, from the Faculty of Medicine in Paris, he not only deposited as a pledge a considerable quantity of plate, but was obliged to procure a nobleman to join with him as surety in a deed, binding himself under a great forfeiture, to restore it." With both these statements Mr. Maitland, in his "*Essays on the Dark Ages*," is very angry: he seeks to invalidate the credit of the inference which the historian would derive from the first by some unworthy quibbles as to his translation of the French word *mauid*, the Latin of which, in a monk's letter, is *modius*, and which Mr. Maitland would translate *bushel*, instead of *five quarters*. He also wonders at the omission by the historian of an item in the price paid—of "a certain number of marten skins." These criticisms do not touch the fact that a great price was paid for a certain volume of homilies, however much they may show the learning of the critic. He is also little content with the second instance quoted by Robertson, and thinks that the value of the inference which he would likewise draw from it is destroyed by a similar fact of modern times—viz., that when Selden wished to borrow a manuscript from the Bodleian Library he was required to give a bond for a thousand pounds. Mr. Maitland's fact, however, fails in the use he would make of it, and fully bears out the supposition that the excessive surety required, in both instances, was a proof of the value of the book; whilst all the concomitant circumstances attending the surety required from the French king show that it was not, as in the case of Selden, an illustration of the rarity of a particular book, but of the rarity of books in general.

Whether this scarcity of books, or the high value that was put upon them, be a proof of general ignorance, to the extent that Robertson asserts, is another matter; still it does not alter the fact, as Mr. Maitland endeavors to show, that this value in books depended rather on the *manner* of their composition than in the nature of the subject which they treated: he thinks, and with justice, that the elements of this estimation are partly to be looked for in the costliness of the illumination and the nature of the binding—the latter being mostly composed "of plates of gold, silver, or carved ivory, adorned with gems, and even enriched with relics." Nevertheless, books must have been scarce, when, we find, upon the showing of the learned writer himself, that the Abbot Bonus, in the beginning of the eleventh century, spent a life in acquiring a

library, the catalogue of which contains but twenty-six items, and only accounts for some forty volumes; and when, as there is every reason to infer, some of the royal libraries of the succeeding two centuries, at least in England, scarcely amounted to half the number.

It may, however, fairly be argued that, if Roger Bacon gave so large a sum as is stated for books, their value must have consisted as well in the subject treated as in the cost of the materials of which they were composed. It shows, at least, that, if the age in general was dark, there must have been a few either prizing, for their own acquisition, works of rare knowledge, or aware of the value set upon them by others; for the venders, whoever they might be, if not conversant with the subject-matter of their merchandise themselves, could not possibly have been ignorant of the estimation in which it was held by those who were: and it is difficult to suppose that these same volumes, acquired at so great a price by the munificent friar, had no other value than in the beauty of their adorning, or the artistical skill of their composition and decoration. If a conjecture may be hazarded by persons so unlearned as ourselves, it is more than probable that they were the rare treatises from which he drew the secrets of ancient Greek philosophy, or the more modern manuscripts of eastern sages from which he derived his knowledge of the occult science of Arabia. Much of that for which he has the credit of discovery, though unknown to his own age, seems to have been familiar to the philosophers of old; and, whilst the merit and wonder of his learning and sagacity be not the less, the darkness of the age in which he lived becomes more apparent; as it is found that what he introduced, and which was then accounted by so many to be the result of magical art, was not so much the discovery of what had never been known as the revival of knowledge lost. Many of the principles upon which his inventions were founded, especially those of optics, seem to have been known to Euclid, Archimedes, Proclus, and Ptolemy. Alhazen, an Arabian author, wrote a treatise, about the year 1100, in which he gave the first distinct account of the magnifying powers of glasses or crystals; and, though Bacon carried his improvements farther, in the matter of spectacles, than any who had preceded him, it is not unfair to suppose that the knowledge of the principles which led him to the invention was contained in some of the rare treatises which had cost him so much. With reference to the greatest invention of which he has the credit—viz., that of gunpowder—Sir Francis, in his dedication, says—"Hindustan seems to have produced the invention of nitrate powder; but it remains to be ascertained to which of the races who have peopled her soil the discovery belongs. Thence it was acquired, either primarily or derivatively, by the Chinese, the Tartar, the Arab, and the Greek, all distinguished either by mental acuteness or warlike spirit, or by both these qualities." He adds—"And if any one of these nations had been permitted by Providence to use the simple process of converting the powder into the grain, the people so acquiring the knowledge would have obtained exactly the same predominance in the middle ages which the modern European now exercises over the rest of mankind." Sir Francis imagines a humorous incident (p. 190) to show that Bacon probably derived his invention from his observations on the nature of the "Greek fire" then in existence, to which there is such constant

allusion in all the histories of ancient warfare, from the hardy enterprises of the Macedonian Alexander, down to the stern conflict of Saracen and Crusader, and the fierce struggles of the Venetian and Genoese republics.

What was the exact nature of this "Greek fire" seems now hardly known; its effects were however very terrible. Of its use by the Turks against the Crusaders, under St. Louis, Jonville, the French historian, who was present, thus speaks—"It was thrown from a machine called a petrary, and came forward as large as a barrel of verjuice, with a tail of fire issuing from it as big as a great sword, making a noise in its passage similar to thunder, and seeming like a dragon flying through the air; and, from the great quantity of fire issuing from it, giving such light in the army that one might see as if it had been day." Gaultier de Carie, a valiant knight, was so terrified that he gave it as his opinion, and it was no bad one, that "as often as it was thrown the soldiers ought to prostrate themselves and beseech the Lord to deliver them from that danger against which he alone could protect them." Jonville adds that "Louis, being in bed in his tent, as often as he was informed that the Greek fire had been thrown, would raise himself up and exclaim, 'Good Lord God, preserve my people.'" This fire was thrown three times in the night from a petrary and four times in the day from a large cross-bow. Geoffrey de Vinesauf, who accompanied Richard Cœur de Lion in his crusade to the Holy Land, speaking of this fire says—"With a pernicious stench and livid flame it consumed even flint and iron, nor could it be extinguished by water; but by sprinkling sand its violence might be abated, and vinegar would put the fire out." Father Daniel tells us that this fire was not only used in sieges but in battles. According to this author, Philip Augustus, king of France, having found a quantity of wild-fire ready prepared at Acre, brought it with him to France, and used it at the siege of Dieppe in burning the English vessels then in harbor. There is nothing new it seems under the sun; and, if we are to believe the same worthy authority, modern "*infernals*" cannot claim for their constructors much novelty of invention, since there seems to have been the same amount of mischievous ingenuity amongst our ancestors. He says, that "there was an engineer named Gaubet, a native of France, who found out the secret of preserving, even under water, a kind of artificial fire enclosed in earthen pots without any openings. He was so excellent a diver as to be able to pass under a river: of this secret he availed himself so far as to succeed in setting fire to some thick palisades that stopped up the entrance to the Isle of Andely, which Philip was then besieging. At the time the enemy made an attack on the bridge which that prince had built over the Seine, and when all the attention of the besieged was directed that way, Gaubet dived with his pots under the palisades and set fire to them. Boats having been prepared for the soldiers, the isle was surprised on that side and the garrison of the castle compelled to capitulate." We do not vouch for the truth of this: we can only say that, if it be true, it beats all that French and American engineers have threatened to do, but, as far as we know, have never done. It is a pity for himself that Gaubet is not alive: he and his pots would have been a capital catch for the Adelaide or the Polytechnic.

To return, however, to our book. The author

has given us some of the truths held by men in the middle ages, but scarcely any of the fictions, of which, it would seem, there were not a few; and yet we would humbly suggest that, without a knowledge of these, it is impossible to form a fair estimate of the actual condition of these times; for it must not be forgotten that, whilst the truth is the secret treasure of the few, the fiction is the common inheritance of the many. Whatever is valuable in institutions or in systems is not, after all, so much the characteristic or the exclusive possession of any one particular age; but is generally the result of the cumulative wisdom of all, the necessities or better perception of each successive generation retaining that which experience has tested, abstracting that which may have become pernicious or obsolete, and adding that which any fresh and nascent condition coevally brings to birth. Great men, far beyond their fellows, there have ever been and always will be; and it would seem that upon these properly devolves the work of removing what may have become effete, or of bringing forth such fresh elements as may be needed. The result of their labor is the characteristic truth which has distinguished every age as indicative both of its necessity and progress. These men must, in a sense, express the mind of their generation; and, though oftentimes at an immeasurable distance, betray that which they have in common with the most ignorant of the day in which they live. Whoever will trace the progress of civilization through the calendar of time, with reference to man's character and deeds, will be able surely to ascertain the processes of this cumulative wisdom, and mark where halts have been made and increasing impetus received in its onward course. It is of the blessing of this wisdom that we are now reaping. What of liberty we enjoy in the state—what of light we have in the church—what of comfort and refinement we experience in the intercourse of social life, is owing, not to any sudden act, outbreak, instantaneous illumination, or unprepared discovery of any one class, or age, or man; but to the legitimate results which the necessities of an altered condition generated—the slow but steady growth of ordained principles to their true developments—and the natural issue of increasing knowledge. The truth is God's; something of it there has ever been with man, for he always, in his mercy, has been near to him. As long as he shall preserve his ambassadors upon earth with their ministry of reconciliation, that truth must manifest itself; and, in proportion as faith finds a place in the spirit of statesmen, priests, or princes, so will all national acts, and all forms of public teaching preserve the golden impress of this most precious of all moral treasures. No man, therefore, can lay his hand upon the institutions of any age and say, "There is no truth here." We know that, as the spirit of life successively tore aside the cumbrous coverings which the cruel care of her nursing by dark ignorance had thrown around her, to the hindrance of all healthful breathing and vigorous action, so her growing vigor became discernible in the successive impartations of truth and light to the greater institutions of Christendom. It is not then to the successive cycles or periods of British history, in isolation from each other, that we must look for that which we possess in the form of state verities or civil privileges—it is not to the struggle of the rude Briton with the polished Roman—of the English churl with his Saxon master—the Saxon serf with

his Norman conqueror—nor to the fierce contention of the lawless baron with his grasping monarch—it is not to the strife for privilege which has so often existed between the church and the state, the commons and the throne—it is not to these alone in separateness—it is not to any one of these that we must look for the blessings we enjoy. They must rather be traced to whatever elements of righteousness there were in any one of these contentions, and they come of the silent but sure consolidation of such elements into systems. There is no element of righteousness which does not, in due time, bear its fruit. Wherever it is found it comes from God, and whatever flows from, or is given by him, has, inherent in it, as the very law of its being, the life-like property of fecundity. Men see not, it may be, in the wild and prolific abundance of natural vegetation, how or when the seed is dropped into the ground: they dream not, whilst it is hidden, of that which it shall one day be. A bird of the air may carry all unheeded the source of future life to a distant spot; and, where there was barrenness before, beauty and verdure may spring forth, though by processes all abstract from the ken of man. So it is with the constitution of the land; the Briton, the Roman, the Saxon, and the Norman, have each contributed somewhat to its formation. The rude struggle for freedom left its impress: the better civilization of the capital of the world was not without its ameliorating influence: with the sea kings and their tribes came in the spirit of enterprise and the elements of inquiry; whilst the mailed conquerors of the country somewhat redeemed the wrongs occasioned by their rapacity in the amenities of chivalry which they introduced, and the greater ecclesiastical knowledge and learning which they brought with them. Though what of right each contributed might for a time have been hidden from sight in the rank masses of coeval corruptions, yet the clearing processes of advancing civilization, whilst they removed that which was less pure, laid bare and gave healthful life to that which was essentially good. The seeds of truth are ever sown by the merciful care and providence of God, and no matter by what hand he sows them, they must spring forth and be fruitful in blessing to some one or other of his creatures; and we are now reaping the result of every right principle for which our ancestors, according to their light, or in any measure, contended.

The graphic sketches which Sir Francis gives of an election, the transactions of the Guildhall and the session of the king in Parliament, lead his readers easily and naturally to entertain the just reflections which he makes on the constitution, political and civil, of the country; whilst the great truth is ever presented to our minds, that man, in all the changing and varied forms of his social existence, has been essentially the same. Though between the costume of one age and the guise of another there may be enough of distinction to show of what different aspects he is capable, there is still sufficient of that which is common to all to establish a common brotherhood between the men of climes and epochs far removed from each other. Whilst it shows the folly of the unthinking, therefore, to despise any phase through which man in his social existence has passed, it betrays, on the other hand, a want of intelligence as to that for which he is fitted and destined to assume the aspect of a by-gone time, as being more suited to our condition than that which we have. To enforce what we

feel upon the subject we cannot do better than quote from the book before us one of the many beautiful reflections with which it abounds, wherein the author, though in other forms, enunciates the principles which we have ventured to suggest.

"But is there any reason to wonder if the devices of the mortal man, the shadows of a shade, are seen to waste and wane away? Should we sorrow because the stability of the everlasting hills is denied to the fabric raised upon dust and ashes? Must we not confess the truth, and submit, without repining, to the wisdom of the dispensation which decrees that when human institutions have once arrived at their fatal term they can never be revived? During the convulsions which alter the level of society, new opinions have been adopted, new habits have been assumed. Young spirits have risen, confident in their own untaught conceit; whilst ranks of contending champions have sunk into the grave. Diversified as the human countenance is, by feature and expression, the human mind is still more varied by temper, education, rank, position, and intellect. Providence works by eliciting modes of thought, not cyclical but successive; and in which man freely acts, though without the power of controlling their evolution. No era which has once gone by can ever be brought back: individuals are never reproduced: the creatures not merely of the last year, or even of the yesterday, will never more be found together. Never will the same combinations recur, so long as the world endures."

"The fitness of the forms possessed by the extinguished policy is utterly lost: and the same integrity which resisted the removal of the old landmarks will, as consistently, refuse to disturb the new, within whose boundaries other rights of property have been acquired. Blessed is the protecting hand!"

Now, this is the sound and truthful dealing with the present and the past, so far as moral reflection is concerned, that we need; for the morbid spirit of the times has well nigh, on the one hand, emasculated all wise and vigorous thinking on that which has gone, down to the puerilities of a childish mind; and, on the other, the antagonistic rashness of the age passes by, in its mad haste, whatever of dignity or truth are to be found in that which preceded us. The one is an abuse of the imaginative faculty—the other is a contempt of the meditative powers: in every well regulated mind each should have its place, for they are each an attribute of the immortal spirit, by which she recalls the past for wisdom and anticipates the future for strength and consolation; but all becomes confusion and disorder when either is unduly fostered to the prejudice and weakening of the other.

We could have wished, however, as we have before said, to have found somewhat more of the *fictions* of the middle ages. Much is learnt by contrast. It is oftentimes by the deformity of the lie that the beauty of the truth is made manifest; and the quaint absurdities and monstrous forms of fiction serve to show by what paths and what distance reality has been departed from. It is difficult to suppose a tradition which is not founded on some fact; nevertheless, the forms which popular traditions assume show, in the disfiguring of that fact, how unsafe a vehicle it is for its transmission to society in its positive verity. Say what men will, where these fictions abound proof is given of a dark condition of society; for if there be on the one hand some above their fellows who know the error, there must be on the other a total absence of means by

which it may be pointed out, or an absolute want of capacity to receive the explanation; and in this, after all, lies a sturdy obstacle in the way of those, who, in opposition to all that has hitherto been written on the subject, would fain persuade us that the centuries from the seventh to the thirteenth were not dark.

Customs and costumes are able expounders of the social condition of any nation: the legends of popular faith and the fictions of vulgar tradition, of its moral estate. It is by what men *do believe*, rather than by what they *do not*, that we find out where they stand in the scale of mental civilization; and we apprehend that, whilst the characteristic of the middle ages was *faith*, it was a faith in much that was positively false, rather than in that which was positively true; and this to such an extent that the amount of error far exceeded that of truth; nor should we be able to comprehend all the moral phenomena of those periods, many of which were certainly most beautiful and good, if we did not ourselves believe that it is in the heart, more than in the mind, that God is both apprehended and manifested; and that, apart from what the corruption of man has made them, there is a safeguard for him in the mutual sympathy, better aspirations, and deep yearning after the really excellent in all human affections, as they have been implanted by God. These have ever preserved and do still preserve men, through the overruling mercy of a heavenly Father, in the midst of the darkest times, from the deep abyss into which ignorance would thrust them. We do not forget the light which the church has been commissioned to bear in the midst of the world; nor will we deny that, in the times of her greatest faithlessness, she has still been compelled, in some one form or another, to hold it forth: nevertheless, it is rather to the goodness of God in maintaining that light in, it may be, illegitimate ways, than to any legitimate result of her own influence, rightly directed in the feudal times, that Christendom has emerged, such as she is, from her mad follies of mimes, mysteries, and mumblings.

The mental condition of the middle classes of these ages did not stand high, but the heart was sound: there were tokens of its existence not to be mistaken, in the healthful beatings of honest affection and social union, in many an institution from which the ancient spirit is now gone, or of whose forms the head has taken possession to the dispossession of the heart, with about as much propriety, too, as he should manifest, who, hard and crabbed, lean and angular in his shape, should take a vain conceit to figure in the fitting garments of youthful, supple, and graceful beauty. Sir Francis, speaking of the ancient system of city apprenticeship, says—

“So long as the engagement subsisted according to its pristine spirit, it rendered the master and the servant members of one household and family; the parties were united by the mutual obligation of protection and obedience; the mutual connection recognized better elements than those of mere profit and gain. He would be an unwise legislator for his fellow-men, who would omit to take self-interest into consideration as a most powerful impelling motive; but a sorry one is he who relies upon self-interest as affording any kind of security for diligence or industry, or for any quality to which the name of virtue can be ascribed. Whatever the political economist may urge to the contrary, unless men begin by bettering themselves, all his assumed receipts for bettering their condition are in vain.

“Motives infinitely more valuable than those of mere money or money's worth were engrafted upon the system of apprenticeship, so long as its spirit was properly observed. The admission into the guild, after the period of probation had concluded, was an attestation that, during the period of life when the human character is most susceptible of the influence of habit and example, the future citizen had conducted himself with a due attention to diligence and morality. Gratitude towards a kind master—emulation excited by an able one—the necessity of conciliating a harsh superior—affection towards an infirm or needy parent—the wish to be married, to form that union which the church so emphatically calls ‘a holy state,’ and upon which the happiness of the individual, and through the individual the happiness of the state, so mainly depends—all these rendered the guild an unceasing source of moral renovation to the commonwealth.”

It was the kindly heart, rather than the fertile mind, that originated such systems as these; and though the medal had its reverse, as Sir Francis acknowledges, yet it was one worthy to be borne on the breast of a nation ever distinguished for its open hand and stout courage. If the political economies of these modern times could allow of such a thing as the existence of hearts in the masses of humanity with which they deal, we question whether they would so often fail; but the curse of the day is a mechanical intellect—gigantic if you will—which never thinks its work is effectively done until the finer fibres of the human heart—the sensitive nerves, which expand at the warm handling of affection, as they shrink from the rough usage of the unfeeling—are all beaten out and flattened into one inert, senseless mass, ready for any other impression it may desire to give it. Whatever is beautiful in those visions of the past which the mind will sometimes call into being, invariably stands connected with the associations of kindly feeling and warm, though rude, affection. Nor is this because the fancy would have it so, but because the memory, familiar with the history of the past, naturally leads the thought, though in a creative mood, instinctively to take the forms with which it is most familiar. Knighthood and chivalry, yeoman courage and city independence, come before us, it is true, with aspects of much ignorance, but with much bearing of honest truth and social love; and if the schoolmaster be wanting in the group, whilst we miss, it may be, the impress of his fluent knowledge, we are not wearied with the dull monotony of his inane pedatries.

We neither despise intellect nor knowledge—far from it; we are not so overstocked with either that we could afford to do so were we willing; but they have, in the composition of man's nature and the relations of life, their proper sphere and limits, and when they take the place of kindly affections, and seek to fill up that for which, in the intercourse of man with man, the heart alone was destined, we think (perhaps we speak a rank heresy against the creed of the times) they are to be mourned over as the sad abuses of God's good gifts, rather than rejoiced in as great blessings. After all, you never will and never can have any system of government or of teaching, by which men are to be ruled or bettered in their condition, that will answer to the end proposed, which does not, in some sort, take some of its forms from the simple suggestions of the human heart—which does not reckon that hearts as well as minds are to be dealt with—which does not address itself in the language of experience to

some one of the many facile entrances which the heart of man ever keeps open with a ready welcome for all who rightly come thereto. "No man knoweth the things of a man," (said the apostle,) save the spirit of man which is in him;" and it was a touching, true, and beautiful answer which the psalmist returned—"When thou saidst, Seek ye my face, my heart said unto thee, Thy face, Lord, will I seek."

Concerning the dark ages much has been written *pro* and *con*. Into the literary contest Mr. Maitland has lately entered, and has brought his deep research and learning to bear upon the somewhat reckless assertions of Robertson, Henry, and others. We cannot altogether congratulate him on the issue: he has demolished a few of the out-works of exaggeration, but he has left the stronghold of concurrent testimony, as we think, untouched: he has set, it is true, a few brilliant stars in the moral hemisphere of these ages; he has relieved the darkness, but he has left the period, as he found it, one of night; and has but established what we think most were ready to allow—that to the general rule there were many brilliant exceptions. We do not think that he has dealt at all times fairly with his adversaries, nor that he is always happy in his instances. For his friend Meinwer, Bishop of Paderborn, we have certainly no great respect; we rather apprehend that some of his doings would secure him a less favorable judgment at the Old Bailey, were he to practise them in our days and in our land, than they seem to elicit from this clever writer. His reasoning, in answer to the assertion that "persons of the highest rank and in the highest station could not read or write," seems to us inconclusive. The evidence that exists in support of this assertion, as generally true, is certainly, to say the least of it, in support of the probability of its truth; whilst none, that we know of, exists by which the error of it can be shown. We say "as generally true," because it is clear there were exceptions. Henry I. was a scholar, as his familiar designation of *Beaucerc* proves; so was Henry II. John could not be altogether ignorant of the contents of the books for which he gave a receipt to the Abbot of Reading; nor would Henry III. have borrowed the "Exploits of Antiochia" from the Templars, for the use of his queen, unless she had desired to know what the volume related. Whether John and the queen read for themselves, or by their chaplains, we leave to others to settle.

Mr. Maitland is a learned and pains-taking man, and if he could have found anything by searching which would have enabled him positively to confute Robertson, when he says "the nobility could not write," he would not have spared trouble in the search, nor have hesitated triumphantly to produce his evidence. The reasons why men did not sign the chartularies which conveyed their gifts, as Mr. Maitland sets them down, are very ingenious; but they are, after all, conjectural; and, if the whole case is to be argued on conjectural grounds, we see not why that which lies at the very threshold, which, considering the times, is the most probable, and to which almost all writers have given assent, should not be the first received. Of the four reasons which he deduces from Mabillon, the second, viz., physical inability—is admissible only in a few cases. Of the last two—viz., "an affectation of dignity, through which many high official persons chose that their names should be written by the notary," and "all persons, following the custom of great men, preferred to have their names written by

the notary, that he might say of them what he liked, and to affix the sign of the cross, in token of their faith, instead of writing"—the *first* is rather far-fetched, and the *second* will scarcely stand. Doubtless, the sign of the cross affixed was a symbol of faith and a confirmation of the act; but it stood exactly *where* political jurisprudence has accounted a personal signature to be a better evidence of identity, as it most certainly is. It *may* have been affixed, as Mr. Maitland observes, by those who could write; but we apprehend, in that case, the signature would sometimes have been seen. At any rate, if the question is to be settled by probabilities, we think, as we have already said, that the probabilities are in favor of Robertson's assertion, rather than of the learned critic's attempted refutation. If the nobility of that day could have written, it is singular that there is no evidence in proof of it. Sir Francis Palgrave says—

"So few persons amongst the laity, with the exception perhaps of the mercantile classes and the legists, were acquainted with the alphabet, that reading and writing acquired the name of '*clergy*.' The term '*clerk*' became equivalent to '*pennman*.' Our common nomenclature still bears testimony to the lack learning of ancient times." (16.)

The scene which he describes at page 122, for the purpose of explaining the phrase "benefit of clergy," is also confirmatory of this; whilst, at the same time, it places the church in a better and truer light with reference to this custom than that in which she has generally been seen.

We perfectly agree with Mr. Maitland that the case, as regards the clergy, has been greatly exaggerated; but when he would lead us further, as he seems desirous of doing, till we admit by inference that the darkness of these ages was the exception, and not the rule, we say it with all deference, he has undertaken as difficult a task as that which Horace Walpole proposed to himself in his "Historic Doubts" on the reign and character of Richard the Third. A graver condemnation lies against this clever writer for admitting, without explanation, the term "*his altar*," with reference to the particular saint to whom gifts might be offered. It may be an oversight, but it is one hardly allowable in a matter where the consequences are so serious, and when, unfortunately, such oversights characterize a school of men in the present day, whose real sympathies are too often expressed in the tolerance of doubtful phrases on the one side, which their jealous watchfulness would not suffer on the other. It might seem from these remarks that we are professing to review the very able work which Mr. Maitland has written. We would not do him such an injustice in such a form, nor ourselves so great a wrong; for it is a work which cannot be so easily passed by, and to review it is a task not so easily despatched. In the elucidation of the subject before us, essays, which treat so directly upon it, naturally presented themselves to our recollection, and the free use we have made of their contents is simply a result of the important bearing they have on the settlement of the question, as to whether the ages which are commonly designated "*dark*" were really so or not!

That the middle ages should be dark was a natural consequence of the position in which the world was found from the sixth to the thirteenth century. When the Roman provinces were converted into barbarian kingdoms it was a legitimate result that civilization should receive a violent check; and that, though the barbarian invader might be some-

what humanized by what he found, he should, in a greater degree, animalize what he found by that which he brought in. Learning, the arts and sciences, and all that distinguished man in a higher condition of social existence than that from which they themselves emerged, were despised by these wild conquerors and considered marks of effeminacy; and there is no wonder that, for a period, both knowledge and civilization should be retrogressive. Mr. Hallam considers the extinction of learning to have been intimately connected with the change of language which immediately ensued when so many parts of the world changed masters, as well as the gradual dying out of Latin, the common source of all written information, as a living tongue. The Church, certainly, on the one hand, preserved what light there was, whilst at a later period there came in from the East the knowledge of the sciences. By one of those wondrous systems of compensation which the history of the world so frequently affords, the Arabian paid the Christian in the impartation of his own civilizing knowledge for the wrongs he had done him in his faith; and if the crusader found in the Holy Land little but wounds and sickness, mortification and defeat, he brought back with him many an art which he had learned, and many a polished habit which he had acquired in his rough intercourse and stern encounter with his Moslem foe. Many an amenity which chivalry possessed—many a gleam of scientific knowledge which had so large an influence on the social condition of those days—may be traced to this source, and the reflection opens a new field of profitable speculation on the wondrous ways in which Divine Providence has watched over the destinies of Christendom.

Sir Francis, in the work before us, puts into the mouth of the friar, in the way of sagacious prophecy, some admirable meditations on the probable effects of the future developments of the science that was then in its infancy. He has also been true to the fact, in rendering Roger Bacon's remarks subservient to the one great religious principle which, as his biographers inform us, was really predominant in his mind. We deem it the highest praise, indeed, which we can bestow upon this work, to say, that throughout, the reflections are all conceived in the spirit of the deepest reverence to the divine will and law. Of this the last chapter on knowledge, a very beautiful chapter, is a sufficient proof.

It is, indeed, refreshing when men of information and deep learning dedicate the talent which God has bestowed upon them to His service. Knowledge is not always wisdom: this consists in its right use, rather than in its ample possession. The highest attainment of wisdom is the knowledge of our own ignorance; and the nearer we are led to God by that which we learn the better has learning fulfilled her proper province—the better shall we be able to discern how much, in the midst of all we know, we yet lack. God has endowed his creature man with many wondrous faculties and powers, and has allotted to each its proper sphere of exercise and action; and it is a melancholy thing when men turn them from their right uses and bring ruin and deformity into the fair creations which it is their province to engender. Such, alas! is in our day too often witnessed: what might be a noble work for the amount of skill and genius that are brought to its erection, often stands an idol temple—the prison-house of holy things—or the leprous lazaretto of diseased thoughts, through the absence of a master principle of godly reverence. We rejoice

when we behold a man wise as well as learned, and, as far as this little book has made us acquainted with its clever author, we offer the tribute of thankfulness for the amount of truth which he has written.

CONSIDER THE LILIES OF THE FIELD.

MATTHEW vi. 28.

SWEET nurslings of the vernal skies,
Bathed in soft airs, and fed with dew,
What more than magic in you lies
To fill the heart's fond view?
In childhood's sports, companions gay:
In sorrow, on life's downward way,
How soothing!—in our last decay,
Memorials prompt and true.

Relies ye are of Eden's bowers;
As pure, as fragrant, and as fair
As when ye crowned the sunshine hours
Of happy wanderers there.
Fallen all beside—the world of life,
How is it stained with fear and strife!
In Reason's world what storms are rife,
What passions range and glare!

But cheerful and unchanged the while,
Your first and perfect form ye show:
The same that won Eve's matron smile
In the world's opening glow.
The stars of heaven a course are taught
Too high above our human thought;
Ye may be found, if ye are sought,
And as we gaze, we know.

Ye dwell beside our paths and homes,
Our paths of sin, our homes of sorrow;
And guilty man, where'er he roams,
Your innocent mirth may borrow.
The birds of air before us fleet,
They cannot brook our shame to meet;
But we may taste your solace sweet,
And come again to-morrow.

Ye fearless in your nests abide;
Nor may we scorn, too proudly wise,
Your silent lessons, undescried
By all but lowly eyes:
For ye could draw the admiring gaze
Of Him who worlds and hearts surveys:
Your order wild, your fragrant maze,
He taught us how to prize.

Ye felt your Maker's smile that hour,
As when he paused and owned you good;
His blessing on earth's primal hour
Ye felt it all renewed.
What care ye now if winter's storm
Sweep ruthless o'er each silken form?
Christ's blessing at your heart is warm;
Ye fear no vexing mood.

Alas! of thousand bosoms kind
That daily court you and caress,
How few the happy secret find
Of your calm loveliness!
"Live for to-day! to-morrow's light
To-morrow's cares will bring to sight:
Go, sleep like closing flowers at night,
And Heaven thy morn will bless."

—The Christian Year.

From the Foreign Quarterly Review.

1. *The French in Algiers, and Abd-el-Kader.* Murray, London. 1845.
2. *Abd-el-Kader's Prisoners; or, a Five Months' Captivity among the Arabs.* By MONS. A. DE FRANCE. Translated by R. F. PORTER. Smith, Elder, and Co. London: 1846.

If Africa owns one peculiar district on which her ancestral curse is specially entailed, it is surely that portion of the southern shore of the Mediterranean flanked by the pathless sands of the Desert of Sahara, which is known by the modern appellation of "Algeria." In former times, indeed, the hand of the Algerines "hath been against every man"—and foul were the outrages and cruelties which rendered their city a byword, and their name a reproach.

"Ergo exerceatur pœnis, veterumque malorum Supplicia expendunt."

Rhadamanthus himself could not inflict a severer expiation for former license, than their present condition. The red pennon of the pirate is forgotten in the aggressions of the tri-color. Providence—or ambition—has assigned to the "Great Nation" the task of avenging, and that, perhaps, altogether too ruthlessly, the ancient insults of the lawless corsairs of Algiers.

We propose, in the present article, to take a rapid review of the rise and fall of this piratical state, and to enter into some brief considerations of the position and prospects of its French conquerors.

The north-western coast of Africa has undergone, perhaps, more than the usual vicissitudes to which national as well as individual life is subjected. Mauritania Cæsariensis—for such was the name which that district which we now term Algeria received from the Romans, when the battle of Thapsus reduced Numidia under their sway, is a region whose most prominent feature is the two parallel chains of mountains which traverse the country from west to east. The southern and more lofty of the two is called the *Great*, and that which fringes the Mediterranean coast, the *Lesser Atlas*. Ancillary ridges, usually stretching north and south, unite at unequal intervals the two Atlases, and enclose within their arms valleys and table-lands of exquisite fertility; while the northern slopes of the lesser Atlas are covered with the rich and varied vegetation of the east, and yet preserve some of the peculiar advantages of more temperate climates.

This productive colony was lost to the Western Empire, under the third Valentinian. Bonifacius, the imperial governor in Africa, desirous to revolt, but diffident of his own resources, resolved upon an experiment, which is never tried but once, and invoked the aid of a foreign power. Genseric and Gonderic, the young and ambitious leaders of the Vandals, having already devastated Spain, cheerfully promised their assistance; and these princes established, on the ruins of the kingdom they were summoned to preserve, a dynasty which (though at one time menaced by the famous Belisarius) continued to sway the north of Africa, until its conquest was achieved, at the close of the seventh century, by the enterprising khalifs of Arabia.

The reduction of the west had indeed been attempted by the Saracens somewhat earlier; for in the year 647 Abdallah, the foster-brother of Oth-

man, led thither an army of 40,000 men; and though this expedition was not entirely successful, it paved the way for future attempts; and Hassan, the governor of Egypt, established a nominal Arabian supremacy over an immense region, more than 2300 miles in length, comprising, under the general name of Barbary, the states of Morocco, Fez, Algiers, Tripoli, and Tunis.

But though the Arabs overcame the resistance of the aboriginals and of the Romans who still remained in the country; and though their half-disciplined and predatory tribes roamed at pleasure through these fertile districts; it was not in the power of such an unconnected and marauding people, whose principal strength lay in their fervent, but evanescent religious enthusiasm, to form any lasting projects for the subjugation of the provinces they overran. Many, indeed, settled in the country they had invaded, and in time became exposed, in their turn, to aggressions, such as those by which they had themselves profited. But the greater number preferred the wild charms of a desert life to the sober pleasures to which alone a citizen can aspire. Princes, however, of Arabian blood—the Zéirides—reigned over the north-western coast till the beginning of the twelfth century; and it was under their patronage that Abdallah, the marabout,* implanted in the bosom of his countrymen that love of Islamism, which—if it has imparted to the resistance of their hardy descendants the ferocity of a religious war—has also stamped it with a generous self-devotedness which irresistibly challenges our admiration and our sympathy.

But, in addition to the aboriginal tribes, the remaining Roman colonists, the Vandals, and their Arabian conquerors—and we must add to our list the ubiquitous Jew—another people combined to swell the heterogeneous throng, which dwelt in these regions. The Spanish Moors, driven from their native fields in Granada and Andalusia, found here a temporary refuge where they might brood over vain hopes of future revenge.

This confused mass, in course of time, subsided into separate and independent kingdoms—of which Algiers, Morocco, and Tunis, were the most considerable. The history of the two last must from this period be abandoned, in order to pursue the fortunes of Algiers itself.

Exposed to all the temptations, which situation, poverty, and the hereditary craving for wild and hazardous adventure conspired to afford, it is not strange that the coast of Barbary became the dread of every Mediterranean cruiser; but the maritime depredations of its occupants, however daring, did not attain any formidable degree of organization till the commencement of the sixteenth century; when the restless ambition of two brothers, in humble station, laid the foundation of that lawless power—"friends of the sea, but enemies of all that sailed thereon"—as they exultingly proclaimed themselves, which for nearly three centuries rendered the name of Algiers at once an object of hatred and of terror.

A potter in the island of Lesbos enjoys the ambiguous celebrity of being the father of these youths. Horac and Hayraddin have not been the only truants who have shrunk from a life of indus-

*A marabout is the Levite of the Arabs. The distinction is hereditary and is confined to a particular tribe. He is considered a saint both before and after death, and enjoys many privileges, and a vast degree of influence. The word *marabout* is indifferently applied to the tomb or the saint after death.

try; but seldom has truancy been attended with such disastrous consequences to mankind. Both brothers joined the pirates of the Levant, and Horue, the elder and more determined villain of the two, soon learned how high a premium, bravery, when united with a total want of humanity and principle, bore among those roving adventurers. With wickedness sufficient to overawe, and with daring to fascinate, their comrades, the young Lesbians gained rapidly in resources and influence;—but, in all probability, would never have aspired beyond the command of a few privateers, had not a fortunate conjuncture of circumstances opened to them a field for more permanent conquest.

Spain, even before she sank to the condition of a third class state in Europe, was never remarkable either for the justice of her arms, or the liberality of her counsels. Not content with persecuting the unhappy Moors with relentless fury, couched under a pretended zeal for the furtherance of Christianity, Ferdinand V., guided by his clever and ambitious minister, the Cardinal Ximenes, pursued them even to their African retreats. In the year 1505, he despatched to the coast of Barbary a powerful force, under Peter, Count of Navarre; who subdued Oran—a town which has given its name to one of three Regencies into which Algeria is at present divided, placed there a Spanish garrison, and menaced the capital itself.

The Algerines in this extremity summoned to their assistance a prince of Arabian extraction, Selim Eutemi; who enjoyed great influence among the tribes of the desert. This chieftain accepted the sovereignty they offered him, and for a while enabled them to resist the efforts of the generals of Ferdinand. But, in a few years, it was again necessary to resort to foreign aid, and in an ill-advised moment Selim begged succor from Barbarossa, (to whom we have already alluded under his more proper name of Horue,) who at that time had become one of the most notorious of the Mediterranean corsairs. The pirate came; and the infatuated Selim went with open arms to greet his future murderer.

Barbarossa, on his arrival, took the command of the fleet and army, and spared no pains to ingratiate himself with the Algerines. A mixture of cruelty and liberality was peculiarly attractive to a people already predisposed to piracy; and when Barbarossa caused Selim to be stabbed in his bath, and himself to be proclaimed king, he found no more serious opposition than a few subsidiary murders, and the distribution of a few bags of sequins, were sufficient to extinguish.

History has not failed to embellish this crime, in itself sufficiently treacherous, with the incidents of romance. It is said that other passions, besides that of ambition, impelled Barbarossa to shed the blood of his suppliant and his host. The innocent incendiary was Zaphira, Selim's Arabian bride, who, on the murder of her husband, repelled with a noble indignation the amorous overtures of the usurper, and—a second, but a purer Cleopatra—preferred death itself to rewarding his crimes with her love.

But Barbarossa, though immediately successful in his projects, had not gained possession of a quiet throne. The Spaniards, masters of the province of Oran, attacked him with European skill and Eastern perseverance; and the self-elected sovereign of Algiers found his piratical bands, however superior on their native element, totally unable to cope with soldiers regularly disciplined. It was in vain that

the fierce usurper fought with a courage that should animate only the bosom of a patriot; in vain did he scatter his ill-gotten treasure on the banks of the Sinan, in the hope of arresting the steps of his merciless pursuers; Heaven could not suffer the prolonged existence of such a monster; and in dying the death of a soldier he experienced a fate far too lenient for his crimes.

Hayraddin, his successor, known (as well as his brother) by the *soubriquet* of Barbarossa, was less cruel in disposition, and was an equally enterprising commander. Finding himself unable to contend single-handed against Spain, he became a vassal of the Grand Seignior in return for his protection; and so ingratiated himself with the Turkish court by his matchless skill in naval tactics, that Solymán raised him to the dignity of a pasha, sent him against the celebrated Genoese admiral, Andrew Doria; and as he proved successful in his operations against this formidable commander, the grateful sultan assisted him to gain the neighboring kingdom of Tunis by a manœuvre very similar to that which had wrested the sovereignty of Algiers from the family of Selim. The Bey of Tunis, however, Muley Haschen, had the good fortune to escape from the clutches of Hayraddin, and make his way to Spain, where he claimed the assistance of Charles V. His petition was successful; for the emperor, ambitious of the renown, which in those days attached to every expedition against a Mohammedan state, fitted out an immense armament to effect his restoration.

On the 16th of July, 1535, Charles sailed from Sardinia with more than 30,000 troops on board his fleet. The Goletta at Tunis had long been considered one of the strongest forts on the Mediterranean, and Barbarossa had intrusted its defence to Seiran, a renegade Jew, of unquestioned courage and ability. But the numerical preponderance of the Christian army was too overwhelming to allow of any prolonged resistance. The Goletta was taken by a *coup-de-main*; and the tardy loyalty of the inhabitants of Tunis began to declare itself against the usurper. In this extremity, Barbarossa risked all in a pitched battle. The impetuous onsets of the Moors and Arabs, though led on by the fierce janissaries of the sultan, failed to break the serried ranks of Charles' veterans, and the sudden apparition of a body of Christian slaves, who had taken advantage of the confusion to free themselves from their fetters, accelerated a victory that had hardly ever been doubtful; Barbarossa was compelled to abandon Tunis, and save himself, by a hasty flight, from the dungeons of Madrid.

This expedition, one of the most successful exploits of Charles' eventful reign, levelled for a time the power of Barbarossa to the dust. Ten thousand Christian slaves spread the fame of their deliverer through every state of Europe, and Spain for once enjoyed the sweetest triumph a nation can taste; that of having been the successful and disinterested champion of humanity and legitimate warfare. But other engagements soon diverted the attention of Charles from the humbled pirates; and with a pertinacity peculiarly their own, they were soon bolder and more prosperous than ever.

Barbarossa in person indeed no longer directed the affairs of his capital. His duties as the Turkish high admiral detained him at the court of Solymán, but his place at Algiers was ably filled by Hassan Aga, a Christian renegade; and it was when commanded by this general, that the pirates taught Charles a lesson which deeply mortified that

haughty prince, and amply revenged them for their former disasters at Tunis.

The occasion of this fresh invasion by the emperor was the atrocities committed by the pirates on the coast of Spain; and the forces which he assembled were even more numerous than before. Everything apparently conspired to its success. The audacious Algerines had forgotten to spare the dominions of the pope; and his holiness promised absolution to all who took part in the expedition, and the crown of martyrdom to those who should fall. The chivalry of Spain, and many of the gallant knights of Malta, crowded on board the fleets as volunteers, and even ladies of birth and character did not disdain to share the hardships of the voyage. But as the army was disembarking, a violent storm produced that disorder which is fatal to an ill-arranged project; and the torrents of rain which poured for several days together, proved an important auxiliary to the spirited sallies of Hassan. Day by day the immense host became more demoralized and broken; the prestige of former success was dispelled; and at length, without receiving any fatal blow, it melted insensibly away as "snow on the mountain," and Charles, having lost all, *not* excepting his honor, was glad to reëmbark the shattered remains of troops that had conquered at Pavia.

Very dolorous is the narrative of this ill-fated expedition, which has been transmitted to us by the pen of an English volunteer, Sir Nicholas Villagron, who—while he extols the "high enterprise and valeantness" of the emperor—bemoans "the miserable chaunces of wynde and wether, with dyverse other adversities able to move even a stony heart to pray to God for his ayde and succour."

The exultation of the pirates at their success knew no bounds. With sarcastic profusion, an *onion* became the market-price of a captive Spaniard; and the situation of Charles was such during the remainder of his reign, that he could make no further attempt to redeem his lost laurels in Algeria.

But though unattempted by the government of Spain, such a fair field for chivalrous enterprise could not remain long unoccupied. John Gascon, a young Valentian noble, was the next who volunteered to break a lance for the security of travellers. His plan, though rash, was not ill-imagined. Assembling a few adventurous friends, he sailed straight to Algiers, and, favored by the night, approached unchallenged the famous Mole-gate. Had his machinery been equally prompt with his courage, he would have avoided his subsequent fate, and the questionable advantage of ranking among the martyrs of Spain. But gunnery and all the arts subsidiary to it were at that period in their infancy, and bad powder marred many a hopeful design, and sacrificed many a brave soldier. The fire-ships destined to blow up the Algerine fleet would not explode, and the chivalrous Gascon, scornful to escape unperceived, struck his dagger into the Mole-gate, and left it sticking there, in fatal derision of their careless sentinels. A race for life or death followed; but the long polaccas of the pirates gained rapidly on the Spanish vessels, though urged with all the energy of despairing men; and a torturing death, to which it would be useless to do more than allude, ended the career of the gallant but rash Valentian.

The Quixotic attempt of John Gascon was not the only one directed against Algiers by the prowess of individuals. In the year 1635, four young

Frenchmen resolved to win renown by reducing this nest of freebooters with a single privateer. Their expedition, though not so tragical in its termination as that we have just related, was not more successful. Its only effect was to leave in the minds of the Algerines a ranking enmity to the French flag, which in time surpassed their hereditary dislike to that of Spain. This feeling first openly displayed itself when, in the year 1652, a French fleet was forced by stress of weather into their harbor, and the admiral demanded the release of all his countrymen who happened to be confined in the town. A contemptuous refusal was the only answer vouchsafed by the pirates; and the Frenchmen retaliated this insult by carrying off in durance the Turkish viceroys and his principal *cadi*. Madened by this abduction, the Algerines swept the coast of France with fire and sword; and a buccaneering warfare commenced between the two coasts of the Mediterranean. Louis XIV. at length determined to chastise the insolence of the corsairs in the most signal manner, and he announced his intention of laying Algiers in ashes. The reply of the dey to this threat tells more for his humor than his patriotism. "Let him," quoth he, "send me half the money it would cost him, and I will do it for him more effectually." The pirate's coolness, however, did not avail him, for the celebrated Du Quesne, with the aid of bomb-vessels (which had then been recently invented by Bernard Renaud, a young French artisan) found little difficulty in fulfilling the threat of his sovereign; and the humbled and frightened inhabitants, after having endeavored to atone for their resistance by murdering its promoter—a common expedient enough in despotic governments—obtained peace from France, and leisure to recruit their coffers by depredations elsewhere.

It was not, however, only by the secular arm that efforts were from time to time made to rescue unhappy Christians from Paynim bondage. The court of Rome exerted its influence in their cause, and, under her auspices, a society of monks—the Mathurin Trinitarian fathers—established themselves at Fontainebleau, from whence from time to time they despatched bands of missionary traders to traffic with the slave-merchants of Algiers. Their design was humane, and it would be unjust to sneer because the friars yearned after the acquisition of sequins, as well as of communicants. Philemon de la Motte is the Chaucer of these ambidextrous pilgrimages, and he evidently considers the chance of reward for himself and his associates in another world, as unaffected by the trivial circumstance of their having "made it answer" in the present. And perhaps he is right.

The immediate effect, however, of this philanthropic bartering was unfortunate; for the Algerines found the traffic so much to their mind, that to replenish their stock more rapidly than they could do by casual captures on the sea, they commenced again harassing the coast of Spain with marauding incursions; and their spoliation became at length such a disgrace to the government of that country, that, in 1775, Charles III. resolved to give the whole piratical states of Barbary such a decisive blow as would cripple their resources for the future. For this purpose a large fleet was fitted out, and the command entrusted to Count O'Reilly, an Irish adventurer of some reputation, in conjunction with Don Pedro Castejon. But "Ferdinand Count O'Reilly" did not take Algiers. He landed his troops in disorder, kept them for some days in a

state of inaction, exposed to the harrassing attacks of the Algerines, and then hastily reëmbarked them, and returned home. The discomfited Spaniards tried to console each other, not only for dishonor, but for "infinite loss," by alternately cursing the climate of Africa, and the policy of employing a hot-headed and quick-footed soldier of fortune.

Hitherto the states of Europe alone had been insulted by the corsairs, but we have now to recount their relations with a trans-Atlantic power. On the first appearance in the seas of the white stars of the United States, the dey inwardly rejoiced, and promised himself and his associate thieves most thoroughly to despoil the infant republic then struggling into existence. An American vessel was soon captured, and with a coolness that recalls to the mind the grim politeness sometimes recorded of the more civilized "minions of the moon," his highness consoled his captives, while superintending the riveting of their manacles, with praises of the "immortal Washington," and conjured Congress, in answer to its demands for their liberation, to send him that general's portrait, "that he might always have before his eyes the asserter of independence and liberty."

America, although in no mood for jesting, was at that time unable to resent this impertinence of Omar, son of Mohammed. Her contest with England had, indeed, proved triumphant; but another such victory would have been her ruin, and she had emerged from the conflict crippled and resourceless. Though sorely against her will, she was compelled to "eat the leek" proffered her by the insolent dey. Washington did not, indeed, send his picture, but he despatched deputies with plenary powers to purchase, at any reasonable price, the captured Americans. But the bill was heavy, and made out with commercial accuracy:

For 3 Captains	at 6000 dollars each	18,000
2 Mates	at 4000	8,000
2 Passengers	at 4000	8,000
14 Seamen	at 1400	19,600
		53,600
For Custom 11 per Cent,		5,896
Total,		59,496

This was more than America could at that time afford, and several years elapsed before such of the prisoners as had survived their treatment, were liberated.

Hitherto we have seen the wicked "flourishing like a green bay-tree;" but the climax is past; humanity reasserts her rights; and we are about to record the punishment.

During the struggle between Napoleon and the allied powers, Algiers was but little heeded. In vain did the expectant pirates,

"Gaze where some distant sail a speck supplies,
With all the thirsting eye of enterprise."

For, under the policy of Bonaparte, commerce languished almost to inanition—and at a crisis when the liberties of Europe hung suspended in the balance, few vessels cared to cross the seas unless guarded by the all-sufficient protection of an English frigate. But, when the fall of Napoleon gave tranquillity once more to the world, and men began again to busy themselves with trade, and in the pursuit of riches, the piracies committed by the

states of Barbary became once more the subject of remark and indignation.

England, which had just chastised, at such a fearful cost to herself, the great arch-robber of Europe, was not likely to permit the petty depredations of a few insignificant states to remain any longer unrequited. To her, as the constituted protectress of the civilized world, seemed naturally to belong the office of exterminating this nest of robbers. Accordingly, in the year 1816, a discussion arose in parliament, on the motion of Mr. Brougham, as to the propriety of our compelling the piratical governments of Algiers, Tripoli and Tunis, to observe the conventionalities of the law of nations in their intercourse with other states. Up to this period our own relations with them had been on the whole amicable. In the time of Elizabeth, indeed, Sir E. Mansel had conducted thither an expedition, which he mismanaged so much as to weaken in some degree the influence of our flag; and Admiral Blake still later had stormed the Goleta, at Tunis, in revenge for some insults offered to vessels under our protection, and had presented himself before Algiers, and demanded satisfaction from that city also. The Algerines bid him do his worst; and Blake, after having "curled his whiskers," (his constant custom, it is said, when irritated,) captured two of their vessels, and compelled them to sue for peace. These misunderstandings, however, had been only temporary; and in the reign of Charles I. a treaty had been concluded with them, which was then still subsisting, and had been adhered to on their parts with tolerable fidelity. Some, therefore, urged, that, under these circumstances, it was inconsistent with good faith on our part to commence hostilities; and it was moreover suggested, that, waiving the question of right or wrong, success itself would be doubtful; for it was by no means an easy exploit to bombard a city in which all the houses were flat-roofed, and built of stone, after the fashion of Rosetta and Buenos Ayres.

To these arguments, however, it was replied with irresistible force by the promoters of the Algerine expedition, that the pirates, by indiscriminately attacking all nations they fancied weaker than themselves, had become *hostes humani generis*, and out of the pale of ordinary treaties; that we merely owed our own exemption from insult to the salutary dread they entertained of British guns; that, as to the difficulty of the enterprise, it did not become those who had sustained the hostility of Europe, to flinch from punishing half-disciplined barbarians; and, finally, that it was not intended to interfere with their independence, but simply to compel their adherence to those principles, in their foreign intercourse, which humanity and justice rendered imperative on every government.

These considerations prevailed; in the summer of the same year, a fleet was placed under the command of Edward Pellew, Admiral Lord Viscount Exmouth; and that officer was directed to obtain from the several states of Algiers, Tripoli, and Tunis, if possible by negotiation, but failing that, by force of arms: first, the unequivocal abolition of Christian slavery; secondly, the recognition of the Ionian Islands as possessions of our crown; and lastly, an equitable peace for the kingdoms of Sardinia and Naples.

The appearance of the English squadron off the coast of Barbary apparently sufficed to obtain all these concessions. With regard, indeed, to the

article respecting slavery, the Dey of Algiers demurred, and suddenly remembering his allegiance as a vassal of the Ottoman empire, which had long since become merely nominal in its character, suggested the necessity of obtaining the concurrence of the Sublime Porte.

Lord Exmouth, on the dey's first answer, which was a point blank refusal, had vigorously prepared for hostilities; but this latter proposal threw him off his guard. His lordship's honest English heart was no match for the cunning of the Algerine, whose only object was to gain time for finishing the defences of his capital. Unsuspicious of this ulterior object, he even placed a frigate at his command, in order that the desired permission might be more speedily obtained—and, contenting himself with stipulating for a final answer to his demands at the end of three months, sailed back to England, where the fleet was paid off.

Hardly, however, had this been accomplished, when tidings arrived of an outrage so cruel and unprovoked, that we scarcely know whether most to admire the folly or the treachery of the dey under whose orders it was perpetrated.

The town of Bona, to the east of Algiers in the province of Constantina, has from a very early period* been famous for the excellence and abundance of the coral found in the gulf of the same name on which it is situated. These fisheries had been formerly in the hands of the Catalans, then of the Genoese, and afterwards of the French, under whom the "Compagnie d'Afrique" at one time rivalled in wealth and prosperity our own "Hudson's Bay Company." Oregon, however, is not the only debatable territory in the world, and those coral banks often changed masters. At length, in 1807, England was duly invested by the dey with the seigniorial possession of this fishing station; and at the time of Lord Exmouth's expedition, it was occupied for the most part by Genoese, Neapolitan, or Sardinian traders, under the protection of our flag.

Upon this defenceless colony, as soon as the now hated sails of the English fleet had disappeared, the dey of Algiers, with all the wayward folly of a child, poured out his pent-up indignation. His soldiers laid waste the town, massacred many of the inhabitants and enslaved the remainder; and, failing there, wreaked their vengeance upon the English flags, which they tore to ribands and dragged through the mire in insane triumph.

The commotion excited in England by this burst of foolish fury may easily be imagined. It had at least the effect of silencing those disposed to advocate conciliatory measures with the pirates, and Lord Exmouth set off again for the Mediterranean with the full determination not to be again deceived by his highness.

On arriving at Gibraltar, Lord Exmouth was joined by the Dutch admiral Van Cappillen, who had been ordered by his government to coöperate with the British commander, and the combined fleet set forward in company for the coast of Barbary. The dey now felt that he must throw away the scabbard; and on a frigate appearing in the port of Algiers to take off the English consul, Mr. Macdonald, he placed that gentleman in chains, and hearing to his vexation that his wife and daughter had effected their escape in the dresses of midshipmen, he ordered two boats belonging to

the frigate, which happened to be in the harbor, to be detained with their crews. When these fresh misdemeanors were reported by the fair fugitives, on their arrival on board the fleet, they of course added new fuel to the general indignation, and on the 17th of August, Lord Exmouth anchored his fleet, which consisted of twenty-five English and five Dutch vessels, three or four leagues from Algiers, in no mood to digest any further coquetry on the part of the dey.

His lordship's interpreter, M. Salemé, was immediately despatched with a letter containing the ultimatum of the English admiral. His demands were brief and stern; though not more so than the conduct of his highness fully justified. In addition to our previous requisitions, they comprised stipulations for the immediate delivery of all Christian slaves without ransom; for the settlement of the grievances of the Sardinian, Sicilian, and Dutch governments; and for ample satisfaction for the insults offered to our own. Three hours were all that was to be allowed the dey for deliberation, and M. Salemé was directed to return at the expiration of that time if no answer was previously given. Even this short interval was considered too long by the gallant spirits on board our fleet. "Salemé," playfully exclaimed an officer of the Queen Charlotte, as the interpreter stepped over the side into his boat, "if you return with an answer from the dey, that he accepts our conditions without fighting, we will kill you instead!" And that the same ardor animated the whole fleet their subsequent conduct abundantly testified.

At the expiration of the appointed time, Salemé returned without any reply from his highness, and at the same instant a light breeze springing up, Lord Exmouth gave the signal for advance. Turning the head of his own ship towards the shore he ran across the range of all the batteries without firing a shot, and lashed her to the main-mast of an Algerine brig which lay about eighty yards from the mole that enclosed the inner harbor. The other vessels followed in the wake of the Queen Charlotte, and took up their allotted stations with admirable precision.

A dead silence prevailed during these evolutions; the Algerines were taken by surprise, and their guns were not shotted, so that a brief interval elapsed during which the scene must have been one of the most thrilling interest.

This frightful repose was soon broken. The Algerines took the initiative, and a gun fired athwart the poop of the admiral's vessel began the battle. A furious cannonade on both sides continued for several hours without intermission. The bomb-boats belonging to our fleet pressed forward close under the batteries, and caused immense havoc among the troops which crowded the mole; and, when at last the enemy's fire became more slack, an explosion ship which had been kept in reserve was brought forward close under the walls, and the devastating effects it produced completed their confusion.

The total cessation of the enemy's fire towards the close of the evening convinced Lord Exmouth that his victory was complete, and he therefore drew of his vessels out of gun-shot, and early the next day despatched Salemé with a second note to the dey, reiterating the demands which had been treated so disdainfully the preceding morning. At the same time preparations were made for renewing the bombardment, but they were unnecessary. The haughty Algerine was effectually

* The coral fisheries of Bona are mentioned by Aboul-feda, who flourished about the year 700 of the Hejira, in his "*Description du Pays du Magreb*."

humbled. The greatest part of his capital was reduced to ashes, and his very palace at the mercy of our troops; his ships were burnt or taken, and his numerical loss was very great. Under these circumstances no alternative remained to him. A gun was fired in token of his acceptance of the terms offered, and an officer was sent on shore to superintend the embarkation of the liberated slaves, and the restoration of the immense sums the dey had from time to time exacted from the Sardinian and Neapolitan governments as ransom for their captured subjects. The demeanor of his highness on this trying occasion was very entertaining. The most bitter pill appears to have been the apology which we required on behalf of our consul. Seated cross-legged on his divan, the dey sulkily gave the requisite orders for the freedom of the slaves, and even the delivery of the treasure; but when Salemé hinted that now was the proper time to ask pardon of Mr. Macdonald for the insults to which he had been exposed, his highness shook his head, and puffed his *chibouque* in all the bitterness of wounded pride. But the English officer was inexorable, and Omar at length muttered, that M. Salemé might say for him what he pleased. "This is not sufficient," was the answer, "you must dictate to the interpreter what you intend to express." And the dey at last complied. More than a thousand slaves on this occasion were restored to liberty, and as they embarked on board the vessels employed to convey them to Europe, they exclaimed in grateful chorus: "Viva il Re d'Inghilterra, il padre eterno! è il ammiraglio Inglese che ci ha liberato di questa secondo Inferno!" Among them were inhabitants from almost every state of Europe, but, singularly enough, not a single Englishman.

The punishment which England thus inflicted seemed severe enough to have produced caution, if not penitence; but the habits of the Algerines were too inveterate to be changed. Under Ali, the successor of Omar, who did not long survive his disasters, they returned to their old courses; and so early as 1819, a combined fleet of French and English vessels were compelled to threaten a second bombardment, if their flags were not respected. But from the moment that the last Dey of Algiers, Hassein Pasha, succeeded to the divan, it became evident that even plunder had become a secondary object with the Algerine government; and that hatred to the French power was now the ruling passion by which it was actuated. Among the signs which from time to time gave evidence of this hostile feeling was a tax, which, in 1824, Hassein Pasha levied on all French goods of whatever description; and, as may easily be imagined, the French, the most irascible people in the world, bore with the utmost impatience these marks of enmity, and eagerly longed for some occasion for an open rupture. When both sides were thus ripe for a quarrel, an opportunity was sure to present itself, and the petulant ill-temper of the dey furnished a *causa belli* perfectly legitimate. Upon some trivial dispute with the French consul, his highness so far forgot his dignity and his safety, as to strike him across the face with a fly-flap he held in his hand; and this outrage being followed by an attack on some French establishments near Bona, war was declared. A blockade commenced, which continued for three years, greatly to the expense of France, but not much to the annoyance of the Algerines, who being able to draw boundless resources from the interior, treated the blockading fleet with contempt, and at length fired on the ship of Admiral

de la Bretonniere, which had approached their harbor bearing offers of accommodation.

This unpardonable breach of the laws of legitimate warfare put all France in commotion. The national honor had been outraged in the most open manner, and it must be as openly vindicated. It was therefore resolved, not only to visit the authors of this crime with condign punishment, but also to take that opportunity of repairing the recent dismemberment of the French colonial possessions, by reducing Algeria itself to a province, and establishing there a permanent French supremacy. This project pleased everybody. The patriot exulted in the idea of rivalling, if not eclipsing, the splendor of England in the east; the philanthropist anticipated the blessings which would enure to Africa from European civilization; and the speculatist already saw himself possessed of the rich plain of the Metidja, and the orange-gardens of the Koleah and Blidan, whose fame had even at that time penetrated to Paris, and had there excited a mania for foreign acquisitions not unlike that which raged in the days of Law and the Mississippi Scheme.

Having thus determined upon the subjugation of Algeria, neither pains nor money were spared to insure the success of the expedition. The minister of war, the Count de Bourmont, with more heroism than he afterwards thought proper to display in the course of the campaign, placed himself at its head; and on the 28th of May, 1830, the army effected an undisturbed disembarkation at Sidi-El-Ferruch, a small promontory about five leagues to the west of Algiers.

As the projects of the French embraced occupancy as well as conquest, and an attempt at "colonization made easy," by the aid of wealth and science, the ingredients of the immense host thus poured forth upon Africa were necessarily very miscellaneous, and even chaotic in their character. Engineers to map out the country; savans to philosophize on their discoveries; antiquarians to search after Roman relics; farmers, fond of experimenting, to cultivate the land as it was conquered; emigrants with their title-deeds to farms yet in the future tense firmly secured in their knapsacks, mingled with the more regular elements of an invading army; while crutches for the disabled, wooden legs for the mutilated, and air-balloons for the adventurous, bore witness to the foresight and ingenuity of the Parisian war-office.

The first military operations on the African coast took place on the same day that the army disembarked. A small fort on the promontory appeared to the French engineers to present an obstacle which must be overcome. Approaches were made in form—a storming party threw themselves, with promising bravery, on the breach as soon as practicable—but alas! *parturiunt montes*, and the young aspirants for fame received more railleury than praise when they emerged with the garrison—two hens and a litter of puppies!

But more formidable enemies were not wanting, and soon made themselves felt, though not seen. It was the policy of the dey to allow the French to land, for the sake of plundering their baggage after he should have beaten them; but it formed no part of his design to allow them to sleep in peace when that landing was effected. As night drew on, the tired soldiers addressed themselves to repose—but in vain. Continual alarms prevented their closing their eyes. Sentries mistook their comrades for Bedouins; partial attacks were made

from time to time upon detached portions of the line; out-posts were surprised; and at length the confusion became so great, and the casualties so numerous, that if it had been January instead of June, the consequences would have been very serious. It would, perhaps, have been happy for Hassein Pasha if he had persevered in this mode of warfare. It was suited to his resources, his talents, and his troops. But he had formed an inordinate estimate of his own military skill, and resolved to risk his fortunes in a battle.

The plain of Staweli appeared to offer considerable advantages as a theatre for this combat. Somewhat elevated above Sidi-El-Ferruch, it afforded the Mussulmans the opportunity of charging down hill—a consideration of no slight moment in the onset of troops, each man of whom fought as his own fancy or fortune directed him, and who despised regular manœuvres as much as the Highlanders at Preston-Pans.

The French army consisted of three divisions, each of which was, about four o'clock in the morning of the 17th of June, simultaneously attacked by the enemy; and on each wing the success of the Turks was at first decisive. Against the left the charge was led most gallantly by the Aga in person, at the head of his Janissaries. Urging their horses at full speed down the declivity, and leaping the barriade, behind which the French were entrenched, in a style which Lord Gardiner might envy, their first onset was irresistible; and if it had not been for the opportune arrival of General D'Arne, with the 29th, the fortune of the day might have been different, and "Flodden had been Banockburn." On the right, too, the Bey of Constantina, by creeping up some small ravines clothed with brushwood, approached unperceived within a hundred yards of the French line, and all but achieved the capture of a park of artillery which was there posted.

But among undisciplined troops there is no surer prelude to ruin than a partial success, and at this moment General Lahitte—for the Count de Bourmont had contented himself with surveying the action from the beach with the aid of a telescope—took on himself the responsibility of ordering the whole of the right wing to advance in *echelon*, so as to coop up the Arab army between the two French divisions. This movement was completely successful, although the left forgot to act merely as a *pivot*, and advanced simultaneously with the right. This error, which, with more skilful antagonists might have been fatal, had in fact a happy result; and the barbarians, broken and disheartened, retreated in the utmost disorder. The French army bivouacked for the night in the Algerine camp; and if their general had pushed on immediately to Algiers, there is little doubt he would have carried it by a *coup-de-main*.

But the Count de Bourmont was not a prompt, nor, as we have already hinted, a very courageous soldier. The battle of Staweli was fought and won on the 17th of June, at the distance of only four leagues from Algiers, but it was not till the 28th that the French army was ordered to take Mount Bujareah, the summit of which commanded the capital. This important position was carried in a night skirmish, and rapid preparations were now made for investing Algiers itself. No nation in the world excels France in military engineering; and at day-break on the 4th of July, the batteries of De Bourmont opened their fire at point-blank distance upon the devoted city, with splendid precision and effect.

The dey and his Janissaries fought like lions; but the fortifications of Algiers on the land side, erected merely with a view to the rude assaults of insurgent Arabs, were quite unfitted to withstand a scientific attack—and the issue of the combat was not for a moment doubtful. By nine o'clock, the fire from the emperor's fort, which overhung the town, was silenced; and the French engineers had already broken ground for new works against the remaining stronghold—the Kassaubah—when a flag of truce from the dey announced that he had abandoned the hopeless conflict, and suspended further operations.

The terms which were granted the unfortunate old pirate, were more clement than he could reasonably have expected. His personal property was secured to him, and he was permitted to retire to Naples, which he chose for his future residence. One article of the convention concluded on this occasion is important; as it must influence our opinion of the subsequent conduct of the French in Algeria. It is to this effect—"The exercise of the Mohammedan religion shall remain free; the liberty of the inhabitants of all classes, their religion, property, commerce, and industry, shall receive no injury; their women shall be respected; the general takes this on his own responsibility."

Algiers being thus reduced, and the dey expelled, the French began to congratulate each other on their conquest; to survey its resources, and to deliberate as to its future fate. No great acumen, however, was requisite in the opinion of the politicians of Paris to mark out their future course. The end was obvious, and the means easy. Algeria must be colonized. The Arabs must be flattered or forced into submission; and European energy, with the aid of science, must supply the ravages or the lethargy of barbarism. True, they argued, we have hitherto been unfortunate in our colonies; they have been one by one wrested from us by the arms or jealous diplomacy of other states; but here we have nothing to fear. England, the only power able to molest us, feels secure in the possession of Gibraltar, Malta, and Corfu, and will view with indifference our acquisitions in the west. If Algeria is not, as Egypt, on the high road to India, or to any mighty emporium of wealth, still it enjoys redeeming advantages. Napoleon himself would not have disdained a country so rich in tropical productions, at the distance of only three days' sail from Marseilles. Once let us establish our *Nouvelle France* on the other side of the Mediterranean, and who shall limit our empire? Who can calculate the results that will flow from such a virgin field for wealth and enterprise?

These were bright and not unnatural hopes—yet how signally have they failed! Since the capture of Algiers, in 1830, the north of Africa, instead of conferring riches and prosperity upon France, has been a constant object of anxiety and disappointment, and an incessant drain on her resources. The profound tranquillity which has reigned in Europe, has alone enabled her to maintain in Algeria 100,000 troops, with any regard to prudence. We could almost venture to predict, that in the event of a continental war, she would be compelled, before six months elapsed, to abandon all her African interior possessions to the Arab tribes she is now endeavoring to crush.

It is the coast alone that is at present conquered. Oran, Algiers, Bona, Phillipville, Constantina are hers—but at the distance of ten miles from any of these towns the farmer cannot visit his cattle; the husbandman cannot till his ground, without the

protection of a patrol—and not even then without a very fair chance of being riddled by a bullet, or being dismembered by a yataghan.* And this is the state of things after an occupation of fifteen years—after the expenditure of money France can ill afford to spare from her internal economy—and after the perpetration, on both sides, of outrages which humanity shudders to remember!

That, as far as the Algerines were concerned, the French were justified in expelling the dey, and in taking possession of those territories to which he had a rightful claim, we are prepared to admit. A piratical state has a *caput luminis*, and may be exterminated by the first who is sufficiently powerful; nay, he who accomplishes the feat is entitled to the gratitude of the rest of the civilized world.† England might with equal fairness have annexed Algiers to her colonial possessions in 1816; and that we did not, resulted, perhaps, more from a cautious regard to the national reputation, than from a consideration of the best interests of Europe. England felt at that period all the conscious pride of the popular school-boy. We had “tamed the pride” of the overgrown bully of Europe, and we felt unwilling to hazard our well-earned character by any achievements, the motives of which might be questioned. Perhaps, too, the reflection, that while we retained our possessions in the Mediterranean, we might securely abandon the north-western coast of Africa, was not without its influence in strengthening this commendable coyness.

France, however, had the advantage of being entirely unfettered by the trammels of propriety. She had no character to lose; and therefore did not hesitate to seize the opportunity of enriching herself, by spoiling the Philistines. And, under the circumstances, she decided rightly. Her colonization, as well as reduction, of Algiers and its circumjacent territory, cannot, we think, be censured by even a severe moralist. But we can go no further. *Qui non habet ille non dat*. The dey of Algiers had neither right nor title (not even that of seigniorial possession) to the country south of the plain of the Metidja; and we must confess our sympathy with the efforts the Kabyles of the highlands, and the Bedouins of the plains, are making to preserve that independence which they have enjoyed so long; and which would seem intended by Providence to be a kind of birthright to the inhabitants of such regions, as a partial compensation for the rugged and nomadic life they are destined to lead.

* “Nul ne peut se hasarder à une certaine distance sans être armé jusqu’aux dents. On va chercher de l’eau à la fontaine voisine, le fusil sur l’épaule; on se visite l’arme au bras d’une propriété à l’autre. Cette impossibilité de se transporter à la moindre distance, sans être accompagné d’une escorte est un supplice indéfinissable et qui ne permet pas de se croire un seul instant dans un pays civilisé.” “Rapport, &c., par M. Blanqui,” p. 17.

† The arrogance of the Algerines, and the amount of contribution they levied from different states as a species of *blackmail*, is most surprising. And it is curious to observe the effect of mutual jealousy among the continental powers in elevating to such factitious importance a mere den of robbers. France indeed, since the time of Henry IV., paid no tribute except under color of rent for the coral banks of Bona; and the Roman states enjoyed an equal freedom. Turkey, too, prohibited any depredations on Austrian or Russian vessels. But Sweden, Denmark, Portugal, Tuscany, the Two Sicilies, Sardinia, and Hanover, paid very heavily for the nominal friendship of the dey; and it is a disgraceful fact that England, even so lately as 1806, made him a present of £600 whenever she changed her consul, an event which of course the Algerian government contrived to render tolerably frequent.”—Vide “L’Algérie,” par Baron Baude, vol. i., p. 264.

But their opposition would have long ago succumbed under the immense resources brought to bear against them, if they had not possessed a leader who had influence among them sufficient to organize that partial degree of combination which alone is suited to their genius. Unfortunately for France, such a man appeared at the precise moment when his presence became indispensable, if the Arabs were to offer any effectual resistance. His name is familiar to all the world. There are few, indeed, who have not heard of Abd-el-Kader.

The father of this extraordinary man was a marabout of great celebrity, and lineally descended from Muley Abd-el-Kader, who is revered among the Arabs as the *Elisha* of Mahomet. His mother too, who is still alive, is remarkable for her grace and intelligence, and the young Abd-el-Kader enjoyed the advantage of an extremely cultivated eastern education. While yet a mere youth he thoroughly understood the character of his countrymen, and used every effort to obtain that reputation for sanctity, without which he knew no permanent influence among the Arab tribes could be hoped for; and to which his position as a marabout and a pilgrim to Mecca entitled him to aspire.

On the death of his father, in 1836, the happy effects of this foresight and youthful austerity were immediately perceptible. He was unanimously elected emir of his own tribe; and when he unfurled the banner of Mahomet, proclaimed a holy war, and undertook to drive the unbelievers from Africa, immense masses of tribes crowded to his standard from every quarter; and the young sultan was enabled to commence that determined opposition to the French arms, the issue of which is even yet doubtful, and which has fixed on him the attention of the whole world. His career since that era has been chequered with disasters, but has been on the whole successful. It is evidently not his policy to risk his undisciplined troops in pitched battles against the French, and accordingly he has seldom attempted it; and in the few instances in which he has, even when supported, as in Isly, by the neighboring empire of Morocco, a signal defeat has been his fate. But in vain have general after general attempted his destruction. A victory, however decisive, has failed to crush him—has been barren of the usual consequences. In some quarter where he is least expected, the ubiquitous emir is certain to reappear after the apparent demolition of his forces; to revenge himself for his previous discomfiture by some *coup de main* at once rash and successful, and to vanish as suddenly when his exploit is achieved: while the editor of the “*Moniteur Algérien*” endeavors, with the legerdemain of a French annalist, to turn defeat into victory, and a rapid retreat into a daring *razzia*! The butcheries of Clauzel, Barthezene, and Savary—the courteous urbanity and judicious measures of Lamoricière—and the pompous manifestoes of Bugeaud have proved equally inefficacious. Not only in the more distant provinces, such as Oran and Constantina, but even in the immediate vicinity of Algiers itself, ebullitions and outbreaks of the most dangerous character are continually occurring, and everything evidences the determination of the Mussulmen to shake off the hated yoke of the French on the earliest opportunity.

The “*Journal des Debats*” of the 12th of December, 1845, contains an instructive exposition of this hostility, from the mouth of Mohammed Abdallah, when a prisoner under sentence of death. He had been convicted of instigating revolt among the

Beni-Zoug-Zougs, and was at one time supposed to be the famous Bou-maza, though afterwards ascertained to be only that chieftain's brother. The prisoner enumerates thirty-four different tribes who had pledged their faith to his brother, who is, in fact, (though this has been denied,) one of Abd-el-Kader's numerous emissaries; and on being asked what had his countrymen to complain of on the part of the French, made this reply: "The Arabs detest you because you are of a different religion; because you are strangers; because you now take possession of their country, and to-morrow will demand their virgins and their children. They said to my brother, lead us, and let us recommence the war. Every day which passes consolidates the Christians. Let us have done with them at once." "Whatever you may say," rejoined the mortified official, "there are many Arabs who appreciate and are devoted to us!" "There is but one God," was the answer of the obstinate catechumen; "my life is in His hands, and not in yours. I shall, therefore, speak candidly. Every day you find Mussulmen come to tell you that they are attached to you, and that they are your faithful servants. Do not believe them; they lie through fear or through self-interest. If you were to give every Arab a slice of roast meat every day, which they love so well, cut from your own flesh, they would not the less detest you; and every time that a chief arises whom they believe capable of vanquishing you, they will all follow him, were it proposed to attack you in Algiers itself." "Do you not believe," persisted his interrogators, "that the Arabs will tire of dying for an enterprise which can never have any chance of success?" But the question remained unanswered: refusing to be baited any longer, the prisoner wrapped himself up in his *haïck*, and relapsed into that obstinate silence from which it is hopeless to attempt to arouse a child of the desert.

To this account of the state of the French prospects in Algeria, we give implicit credit; for the course of events during the period of their occupation, bears with it concurrent testimony. The speculative dreams to which the African expedition in 1830 gave birth have faded away. Algeria is yet an unsubdued, an uncolonized, and an unproductive country.

It would have been vexatious if the gallant Arabian, who has directed this opposition, had been either ugly or ferocious; and we are happy to be able to acquaint our readers, on the authority of M. de France, (to whom we owe an apology for this tardy notice,) that he is by no means either the one or the other. That gentleman has detailed his adventures among the Arab tribes, after having been taken prisoner while absent from his ship on a shooting party, in a simple and unaffected style which adds to the interest of his story. The following is his portrait of Abd-el-Kader, which, considering it is from the pen of a Frenchman and a captive, is sufficiently attractive.

"Abd-el-Kader is little, being not more than five-feet high; his face long, and of excessive paleness; his large black eyes are mild and caressing; his mouth small and graceful; his nose aquiline. His beard is thin, but very black. He wears a small moustache, which gives his features, naturally fine, and benevolent, a martial air which becomes him exceedingly. The *ensemble* of his physiognomy is sweet and agreeable. M. Bravais has told me that an Arab chief, whose name I have forgotten, being one day on board the 'Loiret,' in the

captain's state-room, on seeing the portrait of a woman, Isabeau de Baviere, whom the engraver had taken to personify Europe, exclaimed, 'There is Abd-el-Kader.' Abd-el-Kader has beautiful small hands and feet, and displays some coquetry in keeping them in order. He is always washing them. While conversing, squatted upon his cushions, he holds his toes in his fingers, or, if this posture fatigues him, he begins to pare the bottom of the nails with a knife and scissors of which the mother-of-pearl handle is delicately worked, and which he constantly has in his hands.

"He affects an extreme simplicity in his dress. There is never any gold or embroidery upon his *bernous*.* He wears a shirt of very fine linen, the seams of which are covered with a silken stripe. Next to his shirt comes the *haïck*.† He throws over the *haïck* two *bernous* of white wool, and upon the two white *bernous* a black one. A few silken tassels are the only ornaments which relieve the simplicity of his costume. He never carries any arms at his girdle. His feet are naked in his slippers. He has his head shaved, and his head-dress is composed of two or three Greek caps, the one upon the other, over which he throws the hood of his *bernous*."—p. 28.

The testimony paid by M. de France to the courtesy, kindness and humanity of the emir, is equally strong. The cruelties, indeed, practised by the Arabs upon such unfortunate Christians as fall within their clutches are most revolting in their details; but it does not appear that their enormities are authorized, or even known by their sultan,‡ though doubtless his power rests on too precarious a tenure to enable him to hold the reins of discipline with too unyielding a hand.

But, though Sidi-l-Hadj-Abd-el-Kader-Mahidin (which is his name in full) has been a very powerful obstacle to the progress of the French in Africa, he is by no means the only one with which they have had to contend; and we are inclined to doubt whether if he had never existed they would have had better fortune; or whether, if he were to be slain to-morrow, their success would be materially accelerated.

Among the primary causes of the failure of the projected colonization of the north of Africa, may be classed the profound ignorance which prevailed among the French, on their first arrival, of the nature of the country in which they found themselves. Intoxicated with the reports of the fertility of Algeria, they forgot the unhealthiness which is usually its concomitant, and which, in fact, prevails in very many parts of the regency to a fearful extent. Immediately south of Algiers lies the Sahel, which is an immense elevated tract of coun-

* The *bernous* is a woollen mantle without sleeves, but with a hood.

† The *haïck* is a covering of very thin wool, worn as a wrapper over the head and shoulders.

‡ An English vessel had been wrecked off the African coast; the crew were on the point of being sacrificed by the natives when a detachment opportunely arrived from Abd-el-Kader, the officer in command of which thus addressed the Arabs:—"Unhappy people! What are you about? In sacrificing these men you would commit a most wicked action—an offence against God. Drend, then, the anger of your sultan. These sailors are not of the same religion as our enemies, the French; on the contrary, their prophet is acknowledged by ours." So completely overawed were these ignorant people, that their prisoners were conducted in safety to Abd-el-Kader, who, after furnishing them with clothes, &c., sent them to Gibraltar.—"Times" newspaper, 14th of January, 1846.

try, lying between the Mediterranean and the plain of the Metidja. Its surface is crowded with little valleys and intersected by deep ravines. Its general appearance is rugged, sterile, and broken. Here we find health indeed, though no greater susceptibility of culture than is afforded by similar mountainous regions. But, behind this stretches the vast plain of the Metidja, which science and combination might render available, but which, in its present state, confided to the isolated enterprise of individuals, is more fatal to life than even the Arab bullets.*

The disappointment and reaction which followed the discovery of the insalubrity of the "land of promise" were greatly increased by the rash eagerness of the first emigrants to purchase land from the Mussulmen, though they did not understand the nature of the interests they were buying, and were, in fact, entirely ignorant of the tenure of real property among the Algerines. Dispositions of estates, entailed by a species of mortmain, were extremely common. M. Blanqui, who was deputed by L'Academie des Sciences at Paris to investigate the causes of the failure of colonization in Algeria, informs us that those properties are called *habous* or *engagés*, of which the legal estate has been vested by some individual in an eleemosynary or other corporation, while the beneficial interest is reserved to himself and his successors, in some determinate line. The confusion which would flow from this separation of the legal ownership from the actual enjoyment, in the alienation of land, may easily be imagined when we reflect, that in general its existence was unsuspected by the credulous emigrant, and undisclosed by the roguish vendor! The effect of these improvident or fraudulent transactions has been to render the titles to property throughout the regency extremely insecure; and this, combined with the destructive influence of malaria, has deprived France of that nucleus of enterprising and thriving colonists, without which any attempt to radiate over a more extended region must be futile, or at best unstable.

But as if France had been determined to afford her infant colonies on the African coast no aid she could possibly withhold, she has thought fit to fetter their foreign traffic, by the perfect freedom of which they could alone have hoped to surmount their other disadvantages, with trammels which are only suited to a city in its maturity. The tariff, which is only an incentive to the opulent traders of Marseilles, damps the enterprise of the Algerines. They might well have imitated our example at Singapore, which, itself also formerly a mere nest of pirates, has, from the simple expedient of throwing open its ports, become a thriving city of 30,000 inhabitants; but the French, by establishing a *douane* before there was any commerce

to tax, have rendered the first nugatory, and have paralyzed the latter.

The peculiarities of the people among whom they were thrown, presented additional difficulties to the French. The features of the Arab character are strongly defined; and in a general way attach to the Kabyles, the Bedouins, the Beni Amer, the Flittahs, and all that host of tribes, with the names of which the despatches of Marshal Bugeaud have made us familiar. Avarice, restlessness, treachery, and fanaticism; hospitality, hardness, intelligence, and devotion, are some of the antagonistic traits which an Arab of the desert exhibits. In person, too, they all bear to each other a strong family resemblance. Well formed, clean limbed, muscular, and of middle stature, they are the very build for guerilla troops. Their complexion is of a clear olive tint, often deeply browned by exposure to the sun; their eyes are dark and sparkling; their hair black, coarse, and luxuriant. Their senses are sharpened by constant exercise to a degree rivalling the acuteness of the North American Indians. A Bedouin will hear the murmuring of distant warfare, or detect in a cloud of dust an approaching caravan, where a European is utterly at fault. So far from dreading war, it is their choice and their pastime. An Arabian in his war-saddle would not exchange his seat for the softest divan in Persia. To slay a Christian he exultingly sacrifices his own life—for he well believes, that

"They that shall fall in march or fight
Are called by Allah to realms of light;
Where in giant pearls the hours dwell,
And reach to the faithful the wine-red shell;
With their words so sweet, and their forms so
fair,
Their gazelle-like eyes, and their raven hair;
Where the raptured ear may drink its fill
Of the heavenly music of Izrahil;
And bending from Allah's throne on high
Is the Tree of Immortality!"

Such is the crafty creed which the Koran inculcates; and the Moslem too often shames the Christian in his choice between the Future and the Present.

Thus warlike in their tastes, the Arabs have thrown themselves heart and soul into the *mélée*. Religion and interest, duty and pleasure, point towards the same path; and it would require far more tact and circumspection than the French seem disposed to exert to divert them from its pursuit.

But the truth is, that our volatile neighbors have not the gift of colonization. They never have, and never will, succeed in attaching the affections of a foreign people. The feelings of a nation, when conquered, are in a high state of irritation. That irritation must be allayed; but a Frenchman has neither tact nor perseverance to do so. Again; when once the solid fruits of victory have been obtained, a wise foe will refrain from glorying over its opponent; but a Frenchman's vanity is stronger than his prudence, and the bombastic manifestoes of Bugeaud have uselessly exacerbated the enmity of the emir and his followers. Once more: there is no feeling stronger in the Arab bosom than a veneration for domestic ties, and a regard for female purity. The French have violated the one, and have outraged the other;* and the result has been,

* "Malheur au voyageur imprudent qui s'est aventuré sans guide et sans précaution sur ce terrain en apparence si uni et si facile à parcourir! S'il y aborde au temps des hautes herbes, il court le risque d'être enseveli dans ces forêts de graminées colossales qui paraissent de loin un tapis de gazon: S'il y circule à l'époque des chaleurs de l'été, la terre entr'ouverte lui envoie des bouffées de gaz pestilentiels qui donnent la fièvre et la mort: enfin, dans la saison des pluies, tout se change en cloaques fangeux ou en marais profonds qui recèlent autant de pièges et qui sont plus dangereux que la fièvre."—"Algerie. Par M. Blanqui," p. 12. The attention of the French government has lately been ably called to the necessity of systematic cultivation. Vide *Memoires au Roi sur la Colonisation de L'Algerie* par L'Abbé Landmann. Paris. 1845.

* "Le grand argument," says M. Blanqui, p. 101, "des

a loathing hatred of French habits and domination, which seems to leave no hope of conciliation. The war must now be one of extermination. The only alternative is that of abandonment—a measure that adverse circumstances may hereafter force France to embrace—but which we fear it would be vain to hope from her moderation or her magnanimity.

ALLIGATORS.

A LETTER from the "North State," in the Providence Journal, gives several interesting anecdotes of the alligator and his habits.

"The alligator sometimes reaches the length of eighteen feet, though seldom more than twelve or fourteen. He is a powerful reptile, though on the land his bodily movements are necessarily so slow that there is little danger from him when his presence is known, even were he courageous. But he is a coward, and either on land or water, when attacked and pursued, is ever anxious to make his escape. In circumventing his prey, he moves as stealthily as the midnight assassin, or places himself in a position to secure his victim as it passes unsuspectingly almost in contact with his enormous jaws, or within reach of his long and powerful tail, which he wields with as much dexterity as an elephant wields his trunk, and with which he can strike, when on land, nearly as powerful a blow. The weapon is as long as the head and body combined; and it is said he can brandish it with such dexterity and power, that when on the land and "wide awake," he will parry with it, with all the skill of a fencing-master, the most powerful and well directed blow aimed at any part of his body or head.

"Being covered with a coat of mail absolutely impenetrable to buck shot or rifle ball, it requires a practised marksman to cause him to "bite the dust." In the water he floats like a rotten log, with naught visible but his skull and a portion of the under jaw; there is no vulnerable mark but the eye, unless, by bare possibility, the monster may present for a moment his yawning chasm of a mouth—one or the other is your only chance. The only one I ever saw killed was by a rifle ball in the eye. I have known a full-grown alligator to sport near the shore and suffer himself to be amused with volleys of rifle balls from amateur sportsmen for half a day, and then move off leisurely and in triumph, without a wound as evidence of the conflict. On the land the sportsman has two additional marks—one under each shoulder—but though a shot there may wing the game, it is not certain to prove fatal.

"It is said that an alligator will not approach a man who faces him boldly. To this effect is the following narrative, which may be relied on as truth. A widow and an only son resided together on the bank of New River, much frequented by alligators in the summer and autumn. I have seen them there in droves of more than a dozen at a time. In a bend of the river near the residence of the widow and her son was an extensive flat. For some purpose, the young man wished to wade out a considerable distance from the shore. Taking a glance up and down, he discovered nothing in the form of an alligator, and ventured forth. Having progressed some hundred and fifty yards, he looked up, and to his dismay saw one of the monsters at a

considerable distance slowly and stealthily moving towards him. Here was a dilemma. He was satisfied that when he turned to flee his terrible enemy would pursue, and that to reach the shore before him was impossible.

"He had not even a club to defend himself with, and he was at once satisfied that he must serve the reptile for a meal unless he could save himself by a stratagem. His measures were quickly taken. He turned and waded deliberately toward the shore, but neither fast enough nor far enough to fatigue himself much. He then stopped and turned suddenly round, and saw that the alligator, which stopped also, had considerably lessened the distance between them. A second trial, and a third, produced a similar result. And so short was the distance now between himself and his deadly foe, that he was satisfied that to make a fourth attempt to escape would prove fatal. But he was now within hail of the house; and his only chance of life was his rifle, which, like every Carolinian, he kept primed and loaded. With the energy of despair he called for his mother to bring him his gun.

"She responded to his call, but on arriving at the water's edge, and seeing the terrible situation of her son, terror almost deprived her of the power of action. Rallying, however, after a while, she moved on through the water, and placed the rifle in his hands. And here now were mother and son both exposed to the same danger. Life or death hung on the skill of the son as a marksman. Realizing the great importance of well braced nerves, a steady hand, and a good aim, he paused till all agitation had passed away; and then, with the same confidence as though in his favorite grove he was about to bring down a squirrel in sport, he raised his rifle—click—a sharp report—and—he was saved! The ball entered the eye of the monster, and when the smoke cleared away, he was floating on the water in the agonies of death.

"The alligator has been so frequently described that no description of mine is necessary. He is no beauty, and the only mark of the *beau monde* there is about him is, that he is so intolerably scented up with musk that it is disagreeable to approach him. His lank jaws and huge cavern of a mouth give him a disgusting and frightful appearance; while his entire corporeity, besides his apologies for legs and the monstrous appendage of a tail, are by no means calculated to make you look on him with feelings of complacency. But he is as his Creator formed him, and therefore a right and proper alligator."

VENICE.—It is stated that the Austrian emperor has given permission for the congress of Italian naturalists to be held in that city next year. Accordingly, the Venetian municipality have determined upon preparing for the *savans* a distinguished reception. It has been resolved to publish an illustrated description of the city, in two volumes, under the title of "Venice and its Lagunes," and present a copy to each member of the congress; to put at the disposition of the meeting a sum of 20,000 Austrian livres (about 800*l.*) for experiments; to execute a colossal bronze statue of Marco Paolo, for erection in front of the church of San-Giovanni-Crisostomo, where the famous traveller's bones repose, and inaugurate it during the congress; and to have a new grand opera composed, for representation, at the Fenice, on the evening of the opening day.—*Critic*.

peintains Maures ou Arabes a toujours été la corruption de nos mœurs plutôt que la différence des deux religions."

MRS. SOUTHEY'S POEMS.

[From Mrs. Southey's (Caroline Bowles) Poems, just reprinted by Wiley & Putnam, as two parts of their Library of Choice Reading, we copy the following pieces.]

DEDICATION.

TO THE RIGHT REVEREND G. W. DOANE,
BISHOP OF NEW JERSEY.

ONCE have we met—once only face to face,
A brief half hour, by the pale taper's light;
Yet should I grieve to be forgotten quite
By one, whom Memory, while she holds her place
Will oft, with faithful portraiture, retrace.
There are whom in our daily path we greet
Coldly familiar—ev'n so to meet,
Mind to mind stranger: while a moment's space—
Mystical interchange of tone or look—
Binds us to others in strong sympathy,
Fast and forever . . . Christian friend, this book
And its small fellow, I inscribe to thee
Memorial of a meeting—not the last,
If we believe, and hold the promise fast.

CAROLINE SOUTHEY.

Greta Hall, Keswick,
Jan. 23, 1842.

SUNDAY EVENING.

I SAT last Sunday evening,
From sunset even till night,
At the open casement, watching
The day's departing light.

Such hours to me are holy,
Holier than tongue can tell,
They fall on my heart like dew
On the parched heather-bell.

The sun had shone bright all day—
His setting was brighter still,
But there sprang up a lovely air
As he dropt down the western hill.

The fields and lanes were swarming
With holyday folks in their best,
Released from their six days' cares
By the seventh day's peace and rest.

I heard the light-hearted laugh,
The trampling of many feet;
I saw them go merrily by,
And to me the sight was sweet

There 's a sacred soothing sweetness,
A pervading spirit of bliss,
Peculiar from all other times,
In a Sabbath eve like this.

Methinks, though I knew not the day,
Nor beheld those glad faces, yet all
Would tell me that Nature was keeping
Some solemn festival.

The steer and the steed in their pastures
Lie down with a look of peace,
As if they knew 't was commanded
That this day their labor should cease.

The lark's vesper song is more thrilling
As he mounts to bid heaven good-night;
The brook sings a quieter tune,
The sun sets in lovelier light:

The grass, the green leaves, and the flowers,
Are tinged with more exquisite hues;

More odorous incense from out them
Steams up with the evening dews.

So I sat last Sunday evening
Musing on all these things,
With that quiet gladness of spirit
No thought of this world brings:

I watched the departing glory,
Till its last red streak grew pale,
And earth and heaven were woven
In twilight's dusky veil.

Then the lark dropt down to his mate
By her nest on the dewy ground;
And the stir of human life
Died away to a distant sound:

All sounds died away—the light laugh,
The far footstep, the merry call—
To such stillness, the pulse of one's heart
Might have echoed a rose-leaf's fall;

And, by little and little, the darkness
Waved wider its sable wings,
Till the nearest objects and largest
Became shapeless, confused things—

And, at last, all was dark—then I felt
A cold sadness steal over my heart;
And I said to myself "Such is life!
So its hopes and its pleasures depart!

"And when night comes—the dark night of
age,
What remaineth beneath the sun
Of all that was lovely and loved?
Of all we have learnt and done!

"When the eye waxeth dim, and the ear
To sweet music grows dull and cold,
And the fancy burns low, and the heart—
Oh, heavens! *can* the heart grow old!

"Then, what remaineth of life
But the lees with bitterness fraught!
What then?"—But I checked as it rose,
And rebuked that weak, wicked thought.

And I lifted mine eyes up, and lo!
An answer was written on high
By the finger of God himself,
In the depths of the dark blue sky

There appeared a sign in the east—
A bright, beautiful fixed star!
And I looked on its steady light
Till the evil thoughts fled afar;

And the lesser lights of heaven
Shone out with their pale soft rays,
Like the calm, unearthly comforts
Of a good man's latter days;

And there came up a sweet perfume
From the unseen flowers below,
Like the savor of virtuous deeds,
Of deeds done long ago—

Like the mem'ry of well-spent time,
Of things that were holy and dear;
Of friends, "departed this life
In the Lord's faith and fear."

So the burden of darkness was taken
From my soul, and my heart felt light;
And I laid me down to slumber
With peaceful thoughts that night.

ABJURATION.

THERE WAS a time—sweet time of youthful folly !
 Fantastic woes I courted, feigned distress,
 Wooing the veiled phantom Melancholy
 With passion, born, like Love, "in idleness."

And like a lover—like a jealous lover—
 I hid mine idol with a miser's art,
 Lest vulgar eyes her sweetness should discover,
 Close in the inmost chambers of mine heart—

And then I sought her—oft in secret sought her,
 From merry mates withdrawn and mirthful play,
 To wear away, by some deep stilly water
 In greenwood haunt, the livelong summer day—

Watching the flitting clouds, the fading flowers,
 The flying rack athwart the waving grass ;
 And murmuring oft—"Alack ! this life of ours !—
 Such are its joys—so swiftly doth it pass !"

And then mine idle tears (ah, silly maiden !)
 Bedropt the liquid grass like summer rain,
 And sighs, as from a bosom sorrow-laden,
 Heaved the light heart that knew no real pain.

And then I loved to haunt lone burial places,
 To pace the churchyard earth with noiseless
 tread,

To pore in new-made graves for ghastly traces—
 Brown crumbling bones of the forgotten dead.

To think of passing bells, of death and dying—
 'T were good, methought, in early youth to die,
 So loved ! lamented !—in such sweet sleep lying,
 The white shroud all with flowers and rosemary

Stuck o'er by loving hands !—But then, 't would
 grieve me

Too sore, forsooth ! the scene my fancy drew—
 I could not bear the thought to die and leave ye,
 And I have lived, dear friends ! to weep for you.

And I have lived to prove what "fading flowers"
 Are life's best joys, and all we love and prize—
 What chilling rains succeed the summer showers !
 What bitter drops wrung slow from elder eyes !

And I have lived to look on "death and dying,"
 To count the sinking pulse—the short'ning
 breath—

To watch the last faint life-streak flying—flying—
 To stoop—to start ! to be alone with death !

And I have lived to feign the smile of gladness,
 When all within was cheerless, dark, and cold—
 When all earth's joys seemed mockery and madness,
 And life more tedious than "a tale twice told."

And now—and now—pale, pining Melancholy !
 No longer veiled for me your haggard brow
 In pensive sweetness, such as youthful folly
 Fondly conceited ; I abjure ye now !—

Away ! avaunt !—No longer now I call ye,
 "Divinest Melancholy ! mild, meek maid !"
 No longer may your siren spells enthrall me,
 A willing captive in your baleful shade.

"Give me the voice of mirth, the sound of laughter,
 The sparkling glance of pleasure's roving eye !—
 The past is past—avaunt, thou dark hereafter !—
 Come, eat and drink—to-morrow we must die !"

So in his desperate mood the fool hath spoken—
 The fool, whose heart hath said "There is no
 God."

But for the stricken soul—the spirit broken—
 There 's balm in Gilead still : The very rod,

If we but kiss it as the stroke descendeth,
 Distilleth oil to allay the inflicted smart,
 And "peace that passeth understanding" blendeth
 With the deep sighing of the contrite heart.

Mine be that holy, humble tribulation—
 No longer "feigned distress, fantastic woe ;"
 I know my griefs—but then my consolation,
 My trust, and my immortal hopes I know

—
 "SUFFICIENT UNTO THE DAY IS THE EVIL
 THEREOF."

Oh ! by that gracious rule
 Were we but wise to steer
 On the wide sea of Thought,
 What moments, trouble-fraught,
 Were spared us here !

But we, (perverse and blind,)
 As covetous of pain,
 Not only seek for more
 Yet hidden, but live o'er
 The past again.

This life is called brief—
 Man on the earth but crawls
 His threescore years and ten—
 At best fourscore—and then
 The ripe fruit falls.

Yet, betwixt birth and death,
 Were but the life of man
 By his *thoughts* measured,
 To what an age would spread
 That little span !

There are, who 're born and die,
 Eat, sleep, walk, rest between—
 Talk—*act* by clockwork, too,
 So pass, in order due,
 Over the scene.

With whom the past *is* past,
 The future, *nothing* yet ;
 And so, from day to day
 They breathe, till called to pay
 The last great debt.

Their life, in truth, *is* brief ;
 A speck—a point of time,
 Whether in good old age
 Endeth their pilgrimage,
 Or in its prime.

But other some there are,
 (I call them not more wise,)
 In whom the restless mind
 Still lingereth behind,
 Or forward flies.

With these, things pass away ;
 But past things are not dead ;
 In the heart's treasury,
 Deep-hidden, dead they lie,
 Unwithered.

And there the soul retires,
 From the dull things that are,
 To mingle, oft and long,
 With the time-hallowed-throng
 Of those that were.

Then into life start out
 The scenes long vanished
 Then we behold again
 The forms that have long lain
 Among the dead.

We seek their grasp of love,
 We meet their beaming eye;
 We speak—the vision's flown,
 Dissolving with its own
 Intensity.

Years rapidly shift on,
 (Like clouds athwart the sky,)
 And, lo! sad watch we keep,
 When, in perturbed sleep,
 The sick doth lie.

We gaze on some pale face,
 Shown by the dim watch-light;
 Shuddering we gaze, and pray,
 And weep—and wish away
 The long, long night.

And yet minutest things,
 That mark time's tedious tread,
 Are on the feverish brain,
 With self-protracting pain,
 Deep minuted.

The drops, with trembling hand,
 (Love steadied,) poured out;—
 The draught replenished—
 The label oft re-read
 With nervous doubt.

The watch, that ticks so loud;
 The winding it, for one
 Whose hand lies powerless;—
 And then, the fearful guess—
 "Ere *this* hath run"

The shutter, half unclosed
 As the night wears away;
 Ere the last stars are set—
 Pale stars!—that linger yet,
 Till perfect day.

The morn, so oft invoked,
 That bringeth no relief:
 From which, with sickening sight,
 We turn, as if its light
 But mock'd our grief.

Oh never, after-dawn,
 For us the east shall streak;
 But we shall see agen,
 With the same thoughts as then,
 That pale daybreak!

The desolate awakening,
 When first we feel alone!
 "Dread memories" are these!—
 Yet who, for heartless ease,
 Would exchange one!

These are the soul's hid wealth—
 Relics embalmed with tears.
 Or, if her curious eye
 Searcheth futurity—
 The depth of years;

There (from the deck of youth)
 Enchanted land she sees;
 Blue skies and sun-bright bowers

Reflected, and tall towers,
 On glassy seas.

But heavy clouds collect
 Over that bright-blue sky;
 And rough winds rend the trees,
 And lash those glassy seas
 To billows high!

And then, the last thing seen
 By that dim light, may be
 (With helm and rudder lost)
 A lone wreck, tempest-tost,
 On the dark sea!

Thus doth the soul extend
 Her brief existence *here*,
 Thus multiplieth she
 (Yea, to infinity!)
 The short career.

Presumptuous and unwise!
 As if the present sum
 Were little of life's woe!—
 Why seeketh she to know
 Ills yet to come!

Look up, look up, my soul,
 To loftier mysteries;
 Trust in His word to thee,
 Who saith, "All tears shall be
 Wiped from all eyes."

And when thou turnest back,
 (Oh! what can chain thee *here*!)
 Seek out the Isles of light,
 On "Mem'ry's waste" yet bright;
 Or if too near

To desolate plains they lie,
 All dark with guilt and tears;
 Still, still retrace the past,
 Till thou alight at last
 On life's first years.

There not a passing cloud
 Obscures the sunny scene;
 No blight on the young tree;
 No thought of what *may be*,
 Or what *hath been*.

There all is hope—not hope—
 For all things are possess.
 No—bliss without alloy,
 And innocence and joy,
 In the young breast.

And all-confiding love,
 And holy ignorance,
 Thrice blessed veil! Soon torn
 From eyes foredoomed to mourn
 For man's offence.

O, thither, weary spirit!
 Flee from this world defiled.
 How oft, heart-sick and sore,
 I've wished I were once more
 A little child!

GRACIOUS RAIN.

THE east wind had whistled for many a day,
 Sere and wintry, o'er summer's domain;
 And the sun, muffled up in a dull robe of grey,
 Looked sullenly down on the plain.

The butterfly folded her wings as if dead,
Or awaked ere the full destined time ;
Ev'ry flower shrank inward, or hung down its
head
Like a young heart frost-nipped in its prime.

I, too, shrank and shivered, and eyed the cold earth,
The cold heaven with comfortless looks :
And I listened in vain for the summer birds' mirth,
And the music of rain-plenished brooks.

But, lo ! while I listened, down heavily dropt
A few tears from a low-sailing cloud ;
Large and few they descended—then thickened—
then stopt,
Then poured down abundant and loud

O, the rapture of beauty, of sweetness, of sound,
That succeeded that soft gracious rain !
With laughter and singing the valleys rang round,
And the little hills shouted again.

The wind sank away like a sleeping child's breath,
The pavilion of clouds was upfurled ;
And the sun, like a spirit triumphant o'er death,
Smiled out on this beautiful world.

On this "*beautiful world*," such a change had been
wrought
By these few blessed drops. Oh ! the same
On some cold, stony heart might be worked too, me-
thought,
Sunk in guilt, but not senseless of shame.

If a few virtuous tears by the merciful shed,
Touched its hardness, perhaps the good grain
That was then there and rooted, though long
seeming dead,
Might shoot up and flourish again.

And the smile of the virtuous, like sunshine from
heaven,
Might chase the dark clouds of despair ;
And remorse, when the rock's flinty surface was
riven,
Might gush out and soften all there.

Oh ! to work such a change—by God's grace to
recall
A poor soul from the death-sleep ! To this !
To this joy that the angels partake, what were all
That the worldly and sensual call bliss !

TO A DYING INFANT.

SLEEP, little baby ! sleep !
Not in thy cradle bed,
Not on thy mother's breast
Henceforth shall be thy rest,
But with the quiet dead.

Yes, with the quiet dead,
Baby ! thy rest shall be—
Oh ! many a weary wight,
Weary of life and light,
Would fain lie down with thee !

Flee, little tender nursling !
Flee to thy grassy nest—
There the first flowers shall blow,
The first pure flake of snow
Shall fall upon thy breast.

Peace ! peace ! the little bosom
Labors with shortening breath.

Peace ! peace ! that tremulous sigh
Speaks his departure nigh—
Those are the damps of death.

I've seen thee in thy beauty,
A thing all health and glee ;
But never then, wert thou
So beautiful, as now,
Baby ! thou seem'st to me.

Thine upturned eyes glazed over,
Like harebells wet with dew—
Already veiled and hid
By the convulsed lid,
Their pupils darkly blue.

Thy little mouth half open,
The soft lip quivering,
As if, like summer air,
Ruffling the rose leaves, there
Thy soul were fluttering.

Mount up, immortal essence !
Young spirit ! hence—depart !
And is *this* death ! Dread thing !
If such thy visiting,
How beautiful thou art !

Oh ! I could gaze forever
Upon that waxen face,
So passionless ! so pure !
The little shrine was sure
An angel's dwelling-place.

Thou weepest, childless mother !
Ay, weep—'t will ease thine heart ;
He was thy first-born son—
Thy first, thine only one ;
'T is hard from him to part.

'T is hard to lay thy darling
Deep in the damp cold earth,
His empty crib to see,
His silent nursery,
Late ringing with his mirth.

To meet again in slumber
His small mouth's rosy kiss,
Then—wakened with a start
By thine own throbbing heart—
His twining arms to miss.

And then to lie and weep,
And think the livelong night
(Feeding thine own distress
With accurate greediness)
Of every past delight,

Of all his winning ways,
His pretty, playful smiles,
His joy at sight of thee,
His tricks, his mimicry,
And all his little wiles.

Oh ! these are recollections
Round mothers' hearts that cling !
That mingle with the tears
And smiles of after years,
With oft awakening.

But thou wilt then, fond mother,
In after years, look back
(Time brings such wondrous easing)
With sadness not unpleasing,
Even on this gloomy track.

Thou 'lt say, " My first-born blessing !
 It almost broke my heart,
 When thou wert forced to go,
 And yet for thee, I know
 'T was better to depart.

" God took thee in his mercy,
 A lamb untasked—untried—
 He fought the field for thee—
He won the victory—
 And thou art sanctified.

" I look around, and see
 The evil ways of men,
 And oh, beloved child !
 I 'm more than reconciled
 To thy departure then."

" The little arms that clasped me,
 The innocent lips that prest,
 Would they have been as pure
 Till now, as when of yore
 I lulled thee on my breast !

" Now, like a dewdrop shrined
 Within a crystal stone,
 Thou 'rt safe in heaven, my dove !
 Safe with the Source of love,
 The everlasting One !

" And when the hour arrives,
 From flesh that sets me free,
 Thy spirit may await
 The first at heaven's gate,
 To meet and welcome me."

" I NEVER CAST A FLOWER AWAY."

I NEVER cast a flower away,
 The gift of one who cared for me—
 A little flower—a faded flower—
 But it was done reluctantly.

I never looked a last adieu
 To things familiar, but my heart
 Shrank with a feeling almost pain,
 Even from their lifelessness to part.

I never spoke the word " Farewell,"
 But with an utterance faint and broken ;
 An earth-sick longing for the time
 When it shall never more be spoken.

" THERE IS A TONGUE IN EVERY LEAF."

THERE is a tongue in every leaf,
 A voice in every rill !—
 A voice that speaketh everywhere,
 In flood and fire, through earth and air—
 A tongue that 's never still !

'T is the Great Spirit, wide diffused
 Through everything we see,
 That with our spirits communeth
 Of things mysterious—Life and Death—
 Time and Eternity.

I see him in the blazing sun,
 And in the thunder-cloud—
 I hear him in the mighty roar,
 That rasheth through the forest hoar
 When winds are piping loud.

I see him, hear him everywhere,
 In all things—Darkness, Light,

Silence, and Sound—but, most of all,
 When slumber's dusky curtains fall
 At the dead hour of night.

I *feel* him in the silent dews.
 By grateful earth betrayed—
 I *feel* him in the gentle showers,
 The soft south wind—the breath of flowers—
 The sunshine and the shade.

And yet, ungrateful that I am !
 I 've turned in sullen mood
 From all these things—whereof he said,
 When the great work was finished,
 That they were " Very good !"

My sadness on the fairest things
 Fell like unwholesome dew—
 The darkness that encompassed me,
 The gloom I felt so palpably,
 Mine own dark spirit threw.

Yet he was patient, slow to wrath,
 Though every day provoked
 By selfish pining, discontent,
 Acceptance cold, or negligent,
 And promises revoked.

And still the same rich feast was spread
 For my insensate heart.
 Not always so—I woke again
 To join creation's rapt'rous strain—
 " Oh Lord ! how good Thou art !"

The clouds drew up, the shadows fled,
 The glorious sun broke out—
 And Love, and Hope, and Gratitude,
 Dispelled that miserable mood
 Of darkness and of doubt.

MY EVENING.

FAREWELL, bright Sun ! mine eyes have watched
 Thine hour of waning light ;
 And tender twilight ! fare-thee-well—
 And welcome star-crowned night !

Pale ! serious ! silent ! with deep spell
 Lulling the heart to rest ;
 As lulls the mother's low sweet song,
 The infant on her breast.

Mine own beloved hour !—mine own !
 Sacred to quiet thought,
 To sacred memories, to calm joys,
 With no false lustre fraught !

Mine own beloved hour ! for now,
 Methinks, with garish day
 I shut the world out, and with those
 Long lost, or far away,

The dead, the absent, once again
 My soul holds converse free—
 To such illusions, life ! how dull
 Thy best reality !

The vernal nights are chilly yet,
 And cheerily and bright
 The hearth still blazes, flashing round
 Its ruddy flick'ring light.

" Bring in the lamp—so—set it there,
 Just show its veiled ray
 (Leaving all else in shadowy tone)
 Falls on my book—and—stay—

"Leave my work by me"—Well I love
The needle's useful art ;
T is unambitious—womanly—
And mine 's a woman's heart.

Not that I ply with sempstress rage,
As if for life, or bread ;
No, sooth to say—unconsciously
Slackening the half-drawn thread,

From fingers that (as spell-bound) stop,
Pointing the needle wrong,
Mine eyes towards the open book
Stray oft, and tarry long.

"Stop, stop ! Leave open the glass-door
Into that winter bower ;"
For soon therein th' uprisen moon
Will pour her silvery shower ;

Will glitter on those glossy leaves ;
On that white pavement shine :
And dally with her eastern love,
That wreathing jessamine.

"Thanks, Lizzy ! No ; there 's nothing more
Thy loving zeal can do ;
Only—Oh yes !—that gypsy flower,*
Set *that* beside me too."—

"That Ethiop, in its china vase ?"—
"Ay ; set it *here* ;—that 's right.
Shut the door after you."—"T is done ;
I 'm settled for the night.

Settled and snug ;—and first, as if
The fact to ascertain,
I glance around, and stir the fire,
And trim the lamp again.

Then, dusky flower ! I stoop t' inhale
Thy fragrance. Thou art one
That wooeth not the vulgar eye,
Nor the broad staring sun :

Therefore I love thee !—(Selfish love
Such preference may be ;)
That thou reservest all thy sweets,
Coy thing ! for night and me.

What sound was that ? Ah, Madam Puss !
I know that tender mew—
That meek, white face—those sea-green eyes—
Those whiskers, wet with dew,

To the cold glass—the greenhouse glass—
Pressed closely from without ;
Well, thou art heard—I 'll let thee in,
Though skulking home, no doubt,

From lawless prowl.—Ah, ruthless cat !
What evil hast thou done ?
What deeds of rapine, the broad eye
Of open day that shun !

What ! not a feather plucked to-night !
Is that what thou wouldst tell
With that soft pur, those winking eyes,
And waving tail !—Well, well,

I know thee, friend !—But get thee in,
By Ranger stretch and doze ;
Nay, never growl, old man ! her tail
Just whisked across thy nose.

* The night-smelling stock.

But 't was no act premeditate,
Thy greatness to molest ;
Then, with that long luxurious sigh,
Sink down again to rest ;

But not before one loving look
Toward me, with that long sigh,
Says, " Mistress mine ! all 's right, all 's well !
Thou 'rt there, and here am I !"—

That point at rest, we 're still again.
I on my work intent ;
At least, with poring eyes thereon,
In seeming earnest bent :

And fingers, nimble at their task,
Mechanically true ;
Tho' heaven knows where, what scenes, the while,
My thoughts are travelling to !

Now far from earth—now over earth,
Traversing lands and seas ;—
Now stringing, in a sing-song mood,
Such idle rhymes as these ;—

Now dwelling on departed days—
Ah ! *that 's* no lightsome mood ;—
On those to come—no longer now
Through hope's bright focus viewed.

On that which is—ay, there I pause,
No more in young delight ;
But patient, grateful, well assured,
" Whatever is, is right !"

And all to be is in His hands—
Oh, who would take it thence ?
Give me not up to mine own will,
Merciful Providence !

Such thought, when other thoughts, may be,
Are darkening into gloom,
Comes to me like the angel shape,
That, standing by the tomb,

Cheered those who came to sorrow there.—
And then I see, and bless
His love in all that he withholds,
And all I still possess.

So varied—now with book, or work,
Or pensive reverie,
Or waking dreams, or fancy flights,
Or scribbling vein, may be ;

Or eke the pencil's cunning craft,
Or lowly murmured lay
To the according viola—
Calm evening slips away.

The felt-shod hours move swiftly on,
Until the stroke of ten
(The accustomed signal) summons round
My little household. Then,

The door unclosing, enters first
That aged, faithful friend,
Whose prayer is with her Master's child
Her blameless days to end.

The younger pair come close behind ;
But *her* dear hand alone—
(Her dear old hand ! now tremulous
With palsyng weakness grown)—

Must rev'rently before me place
The Sacred Book. 'Tis there—
And all our voices, all our hearts,
Unite in solemn prayer ;

In praise and thanksgiving, for all
The blessings of the light ;
In prayer, that He would keep us through
The watches of the night.

A simple rite ! and soon performed ;
Leaving, in every breast,
A heart more fittingly prepared
For sweet, untroubled rest.

And so we part.—But not before,
Dear nurse ! a kiss from thee
Imprints my brow. Thy fond good-night !
To God commending me !

Amen !—And may His angels keep
Their watch around thy bed,
And guard from every hurtful thing
That venerable head !

DEPARTURE.

WHEN I go away from my own dear home
Let it be at the fall of the leaf—
When the soulless things that to me have been
Like spirits peopling the silent scene,
Are fading, as if in grief.

When the strains of the summer birds have ceased,
Or in far-off regions swell—
Oh ! let me not hear the blithesome song
Of that Blackbird I fed all winter long,
When I'm taking my last farewell.

The Robin-redbreast will come, I know,
That morn to the window pane,
To look, as wont, for the scattered feast,
With his large dark eyes :—and that day, at least,
He shall not look in vain.

Let the autumn wind, when I go away,
Make moan with its long-drawn breath—
“Fare thee well, sad one !” ’t will seem to say—
“Yet a little while, and a little way,
And thy feet shall rest in death.”

And here, and there, an evergreen leaf
I'll gather from shrub and tree,
To take with me wherever I go ;
And when this poor head in dust lies low,
To be laid in the coffin with me.

I go not like one in the strength of youth,
Who hopes, though the passing cloud
May pour down its icy hail amain,
That summer and sunshine may break out again
The brighter from sorrow's shroud.

An April morn and a cloudy day
My portion of life hath been ;
And darker and darker the evening sky
Stretches before me gloomily,
To the verge of the closing scene.

Gloomily darkens the evening sky :
I shall go with a heavy heart—
Yet—would I change, if the power were mine,
One tittle decreed by the will divine ?
Oh ! no—not a thousandth part ;—

In my blindness I've wished—in my feebleness
wept—
With a weak, weak woman's wail—
But humbling my heart and its hopes in the dust
(All its hopes that are earthly)—I've anchored
my trust
On the strength that can never fail.

TO MY LITTLE COUSIN, WITH HER FIRST BONNET.

FAIRIES ! guard the baby's bonnet—
Set a special watch upon it :
Elfin people ! to your care
I commit it, fresh and fair ;
Neat as neatness, white as snow—
See ye make it ever so.

Watch and ward set all about,
Some within and some without ;
Over it, with dainty hand,
One her kirtle green expand ;
One take post at every ring ;
One at each unwrinkled string ;
Two or three about the bow
Vigilant concern bestow ;
A score, at least, on either side,
'Gainst evil accident provide ;
(Jolt, or jar, or overlay ;)
And so the precious charge convey
Through all the dangers of the way.

But when those are battled through,
Fairies ! more remains to do.
Ye must gift, before ye go,
The bonnet and the Babe also—
Gift it to protect her well,
Fays ! from all malignant spell,
Charms and seasons to defy,
Blighting winds and evil eye.

And the bonny Babe ! on her
All your choicest gifts confer ;—
Just as much of wit and sense,
As may be hers without pretence—
Just as much of grace and beauty,
As shall not interfere with duty—
Just as much of sprightliness,
As may companion gentleness—
Just as much of firmness, too,
As with self-will hath nought to do—
Just as much light-hearted cheer,
As may be melted to a tear—
By a word—a tone—a look—
Pity's touch, or Love's rebuke—
As much of frankness, sweetly free,
As may consort with modesty—
As much of feeling, as will bear
Of after life the wear and tear—
As much of life—But, but Fairies ! there
Ye vanish into thinnest air ;
And with ye parts the playful vein
That loved a light and trivial strain.
Befits me better, Babe ! for thee
To invoke Almighty agency—
Almighty love—Almighty power
To nurture up the human flower ;
To cherish it with heavenly dew,
Sustain with earthly blessings too ;
And when the ripe full time shall be,
Engraft it on Eternity.

ON THE REMOVAL OF SOME FAMILY PORTRAITS.

SILENT friends ! fare ye well—
 Shadows ! adieu.
 Living friends long I've lost,
 Now I lose you.

Bitter tears many I've shed,
 Ye've seen them flow ;
 Dreary hours many I've sped,
 Full well ye know.

Yet in my loneliness,
 Kindly, methought,
 Still ye looked down on me,
 Mocking me not,

With light speech and hollow words,
 Grating so sore
 The sad heart, with many ills
 Sick to the core.

Then, if my clouded skies
 Brightened awhile,
 Seemed your soft, serious eyes
 Almost to smile.

Silent friends ! fare ye well—
 Shadows ! adieu.
 Living friends long I've lost,
 Now I lose you.

Taken from hearth and board,
 When all were gone ;
 I looked up to you, and felt
 Not quite alone.

Not quite companionless,
 While in each face
 Met me familiar
 The stamp of my race.

Thine, gentle ancestress !
 Dove-eyed and fair,
 Melting in sympathy
 Oft for my care.

Grim Knight and stern visaged !
 Yet could I see
 (Smoothing that furrowed face)
 Good-will to me.

Bland looks were beaming
 Upon me, I knew,
 Fair sir !—bonnie lady !—
 From you, and from you.

Little think happy ones,
 Heart-circled round,
 How fast to senseless things
 Hearts may be bound ;

How, when the living prop's
 Mouldered and gone,
 Heart-strings, low trailing left,
 Clasp the cold stone.

Silent friends ! fare ye well—
 Shadows ! adieu.
 Living friends long I've lost,
 Now I lose you.

Often when spirit-vexed,
 Weary and worn,
 To your quiet faces, mute
 Friends, would I turn.

Soft as I gazed on them,
 Soothing as balm,
 Lulling the passion-storm,
 Stole your deep calm—

Till, as I longer looked,
 Surely methought
 Ye read and replied to
 My questioning thought.

"Daughter," ye softly said—
 "Peace to thine heart :
 We too—yes, daughter ! have
 Been as thou art,

"Tossed on the troubled waves,
 Life's stormy sea ;
 Chance and change manifold
 Proving like thee.

"Hope-lifted—doubt-depressed—
 Seeing in part—
 Tried—troubled—tempted—
 Sustained as thou art—

"Our God is *thy* God—what He
 Willet is best—
 Trust him as we trusted : then
 Rest, as we rest."

Silent friends ! fare ye well—
 Shadows ! adieu—
 One friend abideth still
 All changes through.

THE CHILD'S UNBELIEF.

"COME hither, my little Child ! to me
 Come hither and hearken now.
 My poor, poor Child ! is this a day
 For thee to dance, and sport, and play,
 Like blossom on the bough !

"Fair blossom ! where 's the fostering bough !
 And where 's the parent tree !
 Stem, root, and branch—all, all laid low ;
 Almost at once—at one fell blow :
 Dear Child ! cling close to me,

"(My Sister's Child !) for thou shalt grow
 Into my very heart :
 But hush that ringing laugh—to me
 The silver sound is agony ;
 Come, hearken here apart,

"And fold thy little hands in mine,
 Thus standing at my knee ;
 And look up in my face, and say—
 Dost thou remember what, to-day,
 Weeping, I told to thee !

"Alas ! my tears are raining fast
 Upon thine orphan head ;
 And thy sweet eyes are glistening now—
 Harry ! at last believest thou
 That thy poor mother 's dead !"

"No, no, my mother *is not* dead—
 She *can't* be dead, you know :
 Oh aunt ! I saw my father die,
 All white and cold I saw him lie—
 My mother don't *look so*.

"She cried when I was sent away,
And I cried very much;
And she was pale, and hung her head,
But all the while her lips were red,
And soft and warm to touch.

"Not like my father's—hard and cold—
And then *she said*, beside,
She'd come to England soon, you know."
"But, Harry! that was months ago—
She sickened since and died:

"And the sad news is come to-day,
Told in *this* letter. See,
'T is edged and sealed with black."—"Oh! dear,
Give me that pretty seal. Look, here
I'll keep it carefully,

"With all these others, in my box—
They're all for her. Don't cry,
I'll learn my lessons every day,
That I may have them all to say
When she comes, by and by."

"Boy! boy! thy talk will break my heart—
Oh Nature! can it be
That thou in his art silent so!—
Yet what, poor infant! shouldst thou know
Of life's great mystery!

"Of time and space—of chance and change—
Of sin, decay, and death:
What canst thou know, thou sinless one!
Thou yet unstained, unbreathed upon
By this world's tainting breath!

"A sunbeam all thy little life!
Thy very being bliss—
Glad creature! who would waken thee
To sense of sin and misery
From such a dream as this?"

THE RIVER.

River! River! little River!
Bright you sparkle on your way,
O'er the yellow pebbles dancing,
Through the flowers and foliage glancing
Like a child at play.

River! River! swelling River!
On you rush o'er rough and smooth—
Louder, faster, brawling, leaping
Over rocks, by rose-banks sweeping,
Like impetuous youth.

River! River! brimming River!
Broad and deep and *still* as Time,
Seeming *still*—yet still in motion,
Tending onward to the ocean,
Just like mortal prime.

River! River! rapid River!
Swifter now you slip away;
Swift and silent as an arrow,
Through a channel dark and narrow,
Like life's closing day.

River! River! headlong River!
Down you dash into the sea;
Sea, that line hath never sounded,
Sea, that voyage hath never rounded,
Like eternity.

TO THE LADY-BIRD.

"LADY-BIRD! Lady-bird! fly away home"—
The field-mouse is gone to her nest,
The daisies have shut up their sleepy red eyes,
And the bees and the birds are at rest.

Lady-bird! Lady-bird! fly away home—
The glow-worm is lighting her lamp,
The dew's falling fast, and your fine speckled wings
Will flag with the close clinging damp.

Lady-bird! Lady-bird! fly away home—
Good luck if you reach it at last:
The owl's come abroad, and the bat's on the roam,
Sharp-set from their Ramazan fast.

Lady-bird! Lady-bird! fly away home—
The fairy bells tinkle afar,
Make haste, or they'll catch ye, and harness ye fast,
With a cobweb, to Oberon's car.

Lady-bird! Lady-bird! fly away home—
But, as all serious people do, first
Clear your conscience, and settle your worldly
affairs,
And so be prepared for the worst.

Lady-bird! Lady-bird! make a short shrift—
Here's a hair-shirted Palmer hard by;
And here's Lawyer Earwig to draw up your will,
And we'll witness it, Death-Moth and I.

Lady-bird! Lady-bird! don't make a fuss—
You've mighty small matters to give;
Your coral and jet, and—there, there—you can tack
A codicil on, if you live.

Lady-bird! Lady-bird! fly away now
To your house in the old willow-tree,
Where your children, so dear, have invited the ant
And a few cozy neighbors to tea.

Lady-bird! Lady-bird! fly away home,
And if not gobbled up by the way,
Nor yoked by the fairies to Oberon's car,
You're in luck—and that's all I've to say.

THE PAUPER'S DEATH-BED.

TREAD softly—bow the head—
In reverent silence bow—
No passing bell doth toll,
Yet an immortal soul
Is passing now.

Stranger! however great,
With lowly reverence bow;
There's one in that poor shed—
One by that paltry bed,
Greater than thou.

Beneath that Beggar's roof,
Lo! Death doth keep his state:
Enter—no crowds attend—
Enter—no guards defend
This palace gate.

That pavement damp and cold
No smiling courtiers tread;
One silent woman stands
Lifting with meager hands
A dying head.

No mingling voices sound—
An infant wail alone;
A sob suppressed—again
That short deep gasp, and then
The parting groan.

Oh! change—Oh! wondrous change—
Burst are the prison bars—
This moment *there*, so low,
So agonized, and now
Beyond the stars!

Oh! change—stupendous change!
There lies the soulless clod:
The Sun eternal breaks—
The new Immortal wakes—
Wakes with his God.

From the Boston Daily Advertiser.

THE LATE LIEUT. COM. GEO. M. BACHE.

THIS officer, at the time of his death, was engaged in a series of observations, the practical object of which is to improve and perfect the thermometrical navigation of our own coast, but which also lead to investigations of great interest in physical science.

Being the descendant of Dr. Franklin, who was the first to make systematic experiments upon the temperature of the remarkable current that flows along our shores, he had entered upon this duty with an honorable zeal to continue, and carry to a successful termination, the useful work, commenced in his own family, and associated with the name of its distinguished ancestor.

He was qualified for his task both by natural talents and by an education quite uncommon for a naval officer.

After passing his examination for promotion, he devoted several years to a course of study, such as fitted him particularly for scientific observation; and the accession of his brother to the office of superintendent of the coast survey afforded him a suitable opportunity for the employment of his talents and knowledge.

Previously to this, however, he had been connected with the same work in the performance of its regular duties, and nine years of assiduous and very successful labor, have identified his usefulness with the greater part of the hydrography of this coast, so far as it has been executed by the coast survey.

Few men of his date of commission were more accomplished in the general duties of the naval officer, and none excelled him in the number and variety of accomplishments which are becoming to a gentleman in every station. In this latter respect, indeed, he was an ornament to the navy, and more than paid the debt that every man is said to owe to his profession. He was a good seaman, and delighted in the exercise of an art especially attractive to a bold and enterprising spirit. During the last twelve hours of his life, while engaged in a struggle with one of those destroying storms which at this season of the year sweep with fearful havoc over our coast, he displayed perfect coolness and familiarity with the resources of seamanship, and after a careful examination into the circumstances of the event, it cannot be perceived that he neglected any necessary precaution, or that his judgment and skill were not fully equal to every emergency.

He made a brave stand to save his vessel, and the last order he gave before being washed overboard alone secured her from total wreck.

A short time before giving this order he called upon his officers to observe that he had done everything that was possible to preserve the vessel, and the lives of those under his command. He died with this expression of disinterested devotion to the obligations of his responsible station on his lips—as it becomes an officer, at his post—and as it becomes a good man, thinking more of his duty than of himself.

Those who were intimately acquainted with his habit of serious thought know that it was the noble ambition of his life to be useful, working while it was yet day.

And this purpose he certainly attained, as well in the profitable results of his life, which appear in numerous records of the coast survey, as in the honorable example of his death, which found him laboring in the cause not of his country alone, but of science and humanity.

ROBERT PLUMER WARD, ESQ.—On Thursday, the 13th, at the residence of the lieutenant governor of Chelsea Hospital, died Robert Plumer Ward, of Gilston Park, in his 82d year. He held office in the ordnance, and other departments, for the quarter of a century whilst in parliament, and during the tory administrations of Pitt, Perceval, and Liverpool; and when released from the labors which these duties entailed upon him, he, fortunately for his future fame, turned his eminent talents to the cultivation of literature. Twenty-one years ago he published "Tremaine, or the Man of Refinement." Success and popularity immediately attended this novel; and just two years after appeared from the same hand, "De Vere, or the man of Independence." The admirable study of George Canning, among other well-known literary and political characters, in these pages, helped to render them still more popular than, with all their merits, they might otherwise have been. Dr. Cyril Jackson was finely portrayed in this group, and a touch of the autobiography of the author himself peeped out in the episodes called "The Man of Imagination," and "The Man of Content." And content he was to remain ten years before he once more addressed the public. His "Illustrations of Human Life" (like the preceding, in 3 vols.) issued from the press in the spring of 1837, and was followed, in December, 1838, by "Pictures of the World," 3 vols., replete with variety, and, like a Macedoine jelly, full of fine fruits—the results of "much reading, great experience of the world, sensibility towards the beauties of nature, a highly cultivated taste, and a philosophical turn of mind." In 1841, "De Clifford, or the Constant Man," in 4 vols., worthily crowned these excellent productions from Mr. Colburn's teeming printing-office; but if we remember rightly, Mr. Murray, about 1838, also published a work by Mr. Ward, entitled "An Historical Essay on the real Character and Amount of the Precedent of the Revolution of 1688." Such are the literary features in the life of this thoroughly English gentleman, whose family and personal and political career will be appropriately found in Burke's last part of the "Gentry of England," just published. We had the honor and pleasure of Mr. Ward's friendship for many years, and can faithfully bear witness to his fine intelligence and boundless information, to the grace and courtesy of his manners, to the charms of his conversation in society, of the liberality of his spirit, to the integrity of his whole life, firm in public principle and exemplary in pri-

vate intercourse. During his later years he suffered from the infirmity of deafness, but nevertheless displayed his intellect unaffected to the end, and was as cheerful and instructive as we have known him in earlier days. By a curious coincidence, as if coming events did cast their shadows before, he told us that in writing one of his first works, he looked over a road-book to select the name of an old English gentleman's seat congenial to the scene he was about to paint, and pitched upon *Okeover* as possessing the desirable sound. Twenty years after, having never otherwise heard or thought of it, he married the lady to whom that estate belonged, and lived there during many years, the guardian of her son by a former husband, its owner. Mr. Ward, the member for Sheffield, and the inheritor of much of his father's abilities, adopted a different line of politics, in which he has distinguished himself, and is a member of the present government. His highest wish may be, that at the close of his career, his consistency and conduct in every respect may cause him to be as widely esteemed and regretted as his honored father.—*Abridged from the Literary Gazette.*

Dr. BOSTOCK.—Among the deaths recorded in the public obituaries of the last fortnight will be found that of Dr. Bostock, whose name has been long associated with the progress of medical and general science. He was a native of Liverpool, and was the only child of Dr. Bostock, who, after a bright but very brief career of practice in that town, was cut off at an early age, in 1774. The subject of the present notice was born in 1773. Under the tuition of Dr. Priestley, Dr. Black, Dr. Monroe, and Dr. Hope, he became imbued with an enthusiastic love of science, more especially as connected with physiology and the practice of medicine. Having graduated at Edinburgh, in 1794, he settled in his native town, where he was distinguished by a successful practice, and by the most active encouragement of the local charities and literary institutions. He removed to London in 1817—influenced chiefly by the larger facilities afforded by the metropolis for the prosecution of his favorite study, and for enjoying the society of his scientific friends. To those already mentioned he was now able to add the illustrious names of Davy, Wollaston, and Young. Here he finally renounced the practice of physic, and devoted himself entirely to literary and scientific pursuits. Prior to this period, Dr. Bostock had contributed many important articles to Brewster's *Encyclopædia*, and to most of the leading journals; and he now proceeded to publish his *Elementary System of Physiology*—a work of great importance, containing the first connected view of the science put forward in this country. The third and last edition was published in 1837. He afterwards wrote a *History of Medicine*, which forms part of the introduction to the "*Cyclopædia of Practical Medicine*." His other writings are very numerous; but it is not possible, in a brief memoir, to enumerate the titles even of all his separate publications, to say nothing of his contributions to the cyclopædias and leading journals of London and Edinburgh. Since his residence in London, he has been associated with most of the scientific bodies there, and has taken an active share in the management of many. In 1826, he was president of the

Geological Society; in 1832, one of the vice-presidents of the Royal Society; and several times he has been on the councils of the Linnean, Zoological, Horticultural, and Medico-Chirurgical societies, as well as of the Royal Society of Literature. In a word, Dr. Bostock may be said to have held a prominent position among those who have in our day united their energies in the advancement of medical and physical science. In private life he was respected and beloved. He was at all times equally ready to impart the overflowings of his sensitive and affectionate heart, and the varied stores with which his intelligent mind abounded.—*Athenæum*

PHRENOLOGY OF TOM THUMB.—The head of General Tom Thumb has been examined by Mr. Straton, who reports of it that the size of the brain is the smallest recorded of one capable of sane and somewhat vigorous mental manifestation.

"As regards the balance of the different parts of the head, 'General Tom Thumb' is a very favorable specimen in most particulars. The anterior and coronal regions are slightly below an equal balance, the posterior is slightly above. Some of the individual organs present slight deviations from the equal balance. In the anterior region, individuality, form, size, weight, locality, and eventuality, especially the last, are the largest organs. Cautiousness is conspicuous in the lateral aspect. The cerebellum seems to be very small, as defective indeed as I have ever seen it in an infant of six months. In this particular the 'general' is a very remarkable case against the doctrine held by some, that the cerebellum is connected with the regulation of muscular action; for, if there be any one thing more than another, for which he can be said to be remarkable, apart from his diminutive size and fine proportions, it is his control over muscular action. In his representations of the Grecian statues, Napoleon, Frederick the Great, the English gentleman, the Highland chieftain, &c., the rapidity with which he can change his posture, and the accuracy with which he can imitate the actions and attitudes—so far as mere muscular action is concerned—of the objects represented, are regarded as very remarkable. His intellectual acquirements are said to be very limited as yet. It will be extremely important to note his progress in this particular. It is to be hoped that phrenologists who happen to meet with the 'general' will endeavor to inform themselves as accurately as possible regarding his progress and proficiency in intellectual pursuits, and report from time to time. His muscular system has attained a degree of firmness, strength, and maturity, quite equal to, or rather beyond, the average of his age. It is legitimate to presume that the brain is matured in a corresponding degree. His health is said to be excellent. 'General Tom Thumb' is, then, I repeat, a case of unusual interest to the phrenological world. He affords the extremely rare opportunity of solving one question in the great problem: What amount of manifestation is a well-balanced and healthy head of a given size capable of? The 'general' is certainly very near, if he does not actually touch, the extreme lowest point on the scale of size. What, then, is a head of 66 or a brain of 40 cubic inches capable of attaining in his circumstances?"—*Critic.*

From Sharpe's Magazine.

ON THE SUPPOSED POWER OF CERTAIN ANIMALS TO SEE IN THE DARK.

THE popular belief that cats see in the dark derives abundant support from the recorded opinions of eminent naturalists. Buffon says, "The eyes of the cat shine in the dark somewhat like diamonds, which throw out, during the night, the light with which they were, in a manner, impregnated during the day." Valmont de Bismare says, "The pupil of the cat is, during the night, still deeply imbued with the light of the day;" and again, "The eyes of the cat are, during the night, so imbued with light, that they then appear very shining and luminous." Spallanzani says, "The eyes of cats, polecats, and several other animals, shine in the dark like two small tapers," and he asserts that this light is phosphoric. M. Dessaignes, in his *Memoir on Phosphorescence*, says, "The eyes of certain animals have the faculty of inflaming, and of appearing as if on fire in the dark." Trevisanus says, "The eyes of the cat shine where no rays of light penetrate, and the light must in many, if not in all cases, proceed from the eye itself." The same authority also records the case of two Albinos, a boy and a girl, whose eyes were, as he calls it, phosphorescent. Late in the evening they displayed a yellowish brightness, which darted forth in fiery coruscations or globules from the interior of the eyes. Michaelis relates, that, for many years, during the interval between day and night, and during the night itself, he observed irradiations of light issuing from his eyes, sometimes so strong that he could read the smallest print.

Without venturing to place in the above category the assertion of another naturalist, that "a person is said to have recognized a robber by the light produced by a blow on the eye," and being strongly of opinion that the effects described by so respectable an authority as Michaelis proceeded from disease, we would remark that the other authorities speak, not from experiment, but from cursory observation and the reports of others. That the eyes of the cat do shine in the dark is to a certain extent true; but we have to inquire whether the dark is meant the entire absence of light; and it will be found that the solution of this question will dispose of several assertions and theories which, during many centuries, have perplexed this subject.

A few years ago, Dr. Karl Ludwig Esser published in Karsten's Archives the results of an experimental inquiry on the luminous appearance of the eyes of the cat and other animals; and about the same time M. Prevost also produced a *Memoir* on the same subject.

Dr. Esser is careful to distinguish between such animals as really evolve light, and those which only reflect it. Among the former he recognizes the myriads of medusæ which often light up large tracts of the ocean's surface; and luminous insects. He also admits that among the higher animals a real phosphorescence often occurs: such is the light emitted by the eggs of the lizard; the luminousness of the perspired matter in men and horses; the electrical light evolved by stroking the back of the cat, &c. He next proceeds to inquire whether light is actually evolved from the eyes.

Having brought a cat into a half-darkened room, he observed from a certain direction, that the eyes of the animal, when opposite the window, sparkled very brilliantly, but that in other positions the light suddenly vanished. On causing the cat to be held

so as to exhibit the light, and then gradually darkening the room, the light entirely disappeared when the room was made quite dark.

In another experiment, a cat was placed opposite the window in a darkened room. A few rays were permitted to enter, so as to fall upon the face of the animal, while the observer stood with his back to the window. The light of the cat's eyes was of a beautiful green color, but it vanished entirely when the observer turned his head, or the cat her eyes, a little on one side. By adjusting the light, one or both of the cat's eyes were made to shine. In proportion as the pupil was dilated the eyes were brilliant. By suddenly admitting a strong glare of light into the room, the pupil contracted, and then suddenly darkening the room, the eye exhibited a small round luminous point, which enlarged as the pupil dilated.

The eyes of the cat sparkle most when the animal is in a lurking position, or in a state of irritation. Indeed, the eyes of all animals, as well as of man, appear brighter during rage than in a quiescent state; a circumstance not forgotten by Collins, in his *Ode on the Passions*, where he describes Anger, "his eyes on fire." It is said to arise from an increased secretion of the lachrymal fluid on the surface of the eye, by which fluid the light is rendered more brilliant in consequence of increased reflection.

Dr. Esser examined the eyes of cats while under the influence of rage and irritation; as also while they were pleased and enjoying their food, and while they were perfectly tranquil; but, in places absolutely dark, he never discovered the slightest trace of light in the eyes of these animals, and he has no doubt that in all cases where cats' eyes have been seen to shine in dark places, such as a cellar, that light penetrated through some window or aperture, and fell upon the eyes of the animal, as it turned towards the opening, while the observer was favorably situated to obtain a view of the reflection.

To prove more clearly that this light does not depend upon the will of the animal, nor upon its angry passions, experiments were repeated on the head of a dead cat. The sun's rays were admitted through a small aperture, and falling immediately upon the eyes, caused them to glow with a beautiful green light, more vivid even than in the case of a living animal, on account of the increased dilatation of the pupil.

Dr. Esser remarked that black and fox-colored cats evolved a brighter and more conspicuous light than grey and white ones; that the eyes, of dogs, horses, sheep, and hares, shone in dimly lighted places, but that the light differed in color and intensity in the different animals. He also mentions the case of an Albino whose eyes were luminous; he suffered so much from the dread of light that he never ventured abroad except in twilight.

On inquiring into the cause of this luminous appearance, Dr. Esser dissected the eyes of cats, and exposed them to a small regulated amount of light after having removed different portions. The light was not diminished by the removal of the cornea, but only changed in color. The light still continued after the iris was displaced; but on taking away the crystalline lens it was greatly diminished both in intensity and color. "It now struck me," says our ingenious authority, "that the tapetum in the hinder part of the eye must form a spot which caused the reflection of the incident rays of light, and thus produced the shining. This was the more

probable, as the light of the eye now seemed to emanate from a single spot. After taking away the vitreous humor, I observed that in reality the entire want of the pigment in the hinder part of the choroid coat, where the optic nerve enters, formed a greenish silver-colored changeable oblong spot, which was not symmetrical, but surrounded the optic nerve in such a manner that the greater part was above, and only a small part below it, and, therefore, the greater part lay beyond the axis of vision. It is this spot, therefore, that produces the reflection of the incident rays of light, and beyond all doubt, according to its tint, contributes to the differing coloring of the light, to which, nevertheless, the remaining parts of the eye, when conjoined, seem to be no less necessary.⁵⁵

The above quotation will be more intelligible if, without entering into the anatomy of the eye, it be simply explained that the interior of the eye is coated with a black pigment, which has the same effect as the black color given to the inner surfaces of optical instruments; it absorbs any rays of light which may be reflected within the eye, and prevents them from being thrown again upon the retina, so as to interfere with the distinctness of the images formed upon it. The retina is very transparent, and if the surface behind it, instead of being of a dark color, were capable of reflecting light, the luminous rays which had already acted on the retina, would be reflected back again through it, and not only dazzle from excess of light, but also confuse and render indistinct the images formed on the retina. Now, in the case of the cat and many other nocturnal animals, this black pigment, or a portion of it, is wanting; and those parts of the eye from which it is absent, having either a white or a metallic lustre, are called the tapetum. The smallest portion of light entering the eye is reflected by it as by a concave mirror; and hence it is that the eyes of animals provided with this structure are luminous in a very faint light. Many animals which hunt their prey by night are furnished with a white, instead of a black pigment, whereby the action of the luminous rays upon the retina is increased.

Dr. Müller enumerates the animals in which the tapetum is present, and whose eyes, consequently, shine in the dark; these are the ruminating animals, the pachydermata, cetacea, owls, crocodiles, rays, and sharks. It is wanting in man, in apes, giles, cheiroptera, hedgehogs, and moles; in birds, except owls, and in osseous fishes. But the rodent animals, bats, the hedge-hog, and the mole, all obtain their food more by night than by day; and many of them behave in the deepest darkness as if they were directed by light.

But it has been suggested that the sense of touch, indefinitely extended, or some other sense, new to us, may assist these animals. Spallanzani deprived bats of the use of their eyes, and they flew about, through hoops, &c., precisely as if they saw. The genera that see by night have so irritable a retina that they can only see during a very feeble light, but in those animals which see as well by day as by night, the retina is less irritable. In the former case the tapetum is spread over the whole of the choroid, as is the case with the cetacea, owls, and some amphibia and fishes; but in carnivorous and ruminant animals this shining envelope occupies only the upper portion of the choroid. M. Prevost has noticed the shining of the eyes of some insects, among which he names the death's-head moth. He also notices the color of the tapetum in

different animals. In the ox it is of a beautiful gold green, changing into sky blue; in the horse, the goat, the buffalo, the deer, of a silvery blue, changing into violet; in the sheep, of a pale gold green, sometimes bluish; in the lion, the cat, bear, and the dolphin, of a pale gold yellow; in the dog, the wolf, and the badger, of a pure white edged with blue. He is also disposed to doubt the opinion of Spallanzani, that cats, polecats, and some other animals, move with promptitude and certainty in a medium totally deprived of light. In a state of nature they are never placed in such circumstances, nor is it probable that total darkness ever occurs to them in a domesticated state; for, wherever they may be, there is always a certain amount of light, however small, and, in order to be able to see, they only require to have their pupil susceptible of great dilatation, and their retina of an extreme sensibility. It is said that a man shut up for a long time in a very dark dungeon, becomes at length able to read in it. The nocturnal birds which Spallanzani reared saw very well in a place in which he himself could distinguish no object, and he admits that the eyes of these birds do not shine in the dark. Besides sheep, cows, horses, and several other animals which have shining eyes, would, no doubt, find themselves much embarrassed in absolute darkness. If some animals do move with promptitude and security in complete darkness, it is certainly not to their eyes that they are indebted for it, but to some other sense. The bats, in which Spallanzani discovered this faculty, owe it, according to him, to a sixth sense, of which we have no idea; and, according to Cuvier, to the extent of the membrane which their wing presents to the air, and which renders it capable of feeling its resistance, motion, and temperature.

It appears certain that Albinos are never sensible of the light in their eyes, which is visible to others; and that, on the contrary, the flashes of light perceived when the retina is irritated, are unattended by any emission of light, and are, therefore, never visible to any other person than the subject of them.

The foregoing experiments and observations seem sufficient to prove, first, that the shining of the eyes of the cat and of other animals does not arise from a phosphoric light, but only from a reflected light; that consequently, second, it is not an effect of the will of the animal or of violent passions; third, that this shining does not appear in absolute darkness; fourth, that it cannot enable the animal to move with security in the dark.

From Sharpe's Magazine.

THE FROZEN SUB-SOIL, OR GROUND-ICE OF SIBERIA.

OBSERVATIONS hitherto made under the surface of the ground, all tend to prove that there is a stratum, at the depth of from 40 to 100 feet, throughout the whole earth, where the temperature is invariable at all times and seasons, and which differs but little from the mean annual temperature of the country above. At the equator that stratum is said to be at the depth of little more than a foot, in places sheltered from the direct rays of the sun; but in temperate climates it is at a much greater depth. In the course of more than half a century, the temperature of the earth, at the depth of 90 feet, in the caves of the Observatory at Paris, has never been above or below 53°, which is only 2° above the mean annual temperature at Paris. "This

now, unaffected by the sun's rays from above, or by the internal heat from below, serves as an origin whence the effects of the external heat are estimated on one side, and the internal temperature of the globe on the other."

During the last hundred years a vast number of observations have been made in the mines of Europe and America, which agree in proving that the temperature of the earth becomes higher in descending towards its centre. To this interesting subject we propose to offer some further details hereafter; our present purpose being to notice a curious phenomenon connected with the inquiry; viz., that in the cold regions of the earth's surface, the soil, to a certain depth, is *always* frozen, whatever may be the temperature of the air and vegetable soil above, or of the strata below. That this is the case, to some small depth, has been long known in Siberia; but it is only recently that the great thickness of the frozen stratum has been ascertained. Gmelin, in his *Travels in Siberia*, states that at Yakutsk, shortly after the foundation of that town, about a century and a half ago, the soil was found frozen at a depth of ninety-one feet, so that the inhabitants were obliged to give up the sinking of a well. Persons were sent out by the Academy of Sciences of St. Petersburg, about the middle of the last century, to make observations on this subject; they all concurred in the general facts, but appear to have been discredited by men of science. Von Buch, so late as 1825, said, "I am fully convinced that the accounts of the soil being frozen in summer to the depth of many feet, in districts capable of maintaining the growth of shrubs and bushes, are not to be relied on, and that Gmelin's statement that the soil was frozen in a well at Yakutsk at the depth of 100 feet, ought no longer to be quoted in elementary works upon natural philosophy." It will be seen, however, that a much more striking statement than that of Gmelin is now believed by natural philosophers.

A few years ago, a merchant at Yakutsk, of the name of Schargin, began to sink a well, but found the ground frozen so hard that he was about to give up the attempt. Admiral Von Wrangel, the celebrated traveller, advised him, however, to proceed until he came to the bottom of the icy ground; he did so, and sent to the Academy of Sciences at St. Petersburg a record of his proceedings. He had to dig through a depth of 382 English feet, before he arrived at the loose and unfrozen soil; the whole of the vast intermediate mass of earth being at a temperature below the freezing-point, and almost totally uninfluenced by summer heats. The temperature was about 18° Fahrenheit (14° under the freezing-point) at a few feet below the surface of the ground; and gradually increased with the depth until the freezing-point was attained at about the depth mentioned above.

This observation being deemed worthy of credence, the philosophers of Russia and Germany have been anxious to collect additional facts of a similar kind, in order to determine the limit of frozen soil; that is, the latitude at which the heats of summer become sufficiently powerful to thaw the whole of the ground frozen in winter. Humboldt has found the soil frozen at a depth of six feet in lat. 60°. Near Beresov, Erman has found the temperature of the soil, at a depth of twenty-three feet, only just above the freezing-point; and a dead body was found there, which had been buried upwards of ninety-two years in a bed of frozen soil, without showing signs of decomposition. Towards those

parts of Siberia which border on the Pacific Ocean, no frozen soil has been found; but in the interior many records have been collected of ground permanently frozen.

It is desirable to explain somewhat more fully what is meant by "frozen soil," or, as it is sometimes termed, "ground-ice," especially as the latter expression is often used in a very different sense. Professor Von Baer, in a communication to the Geographical Society of London, describes the state of the frozen ground very clearly. If the ground be totally free from moisture, it cannot be frozen; but the ground in high northern latitudes is never in this state. Even the sand, though in the arctic summer its surface may now and then be perfectly dry, is always saturated with wet, before the winter begins. If ground be examined which contains only very little moisture in a frozen state, it is very difficult to detect the ice, as it forms an extremely thin partition between the single particles of the earth. Should the moisture be somewhat more considerable before the freezing comes on, small pieces of ice are perceivable in the frozen earth, wherever the spaces between the particles of the soil are large enough to admit them. "These bits of ice," says Professor Baer, "which look like small crystals, I have particularly noticed between the upper layer of soil, which is thawed, and the lower layer in a frozen state. But in the flat marshy districts of the high northern latitudes, which in Russia are called Fundun, (originally a Finnish word,) there is so much water in the ground, that the quantity of water frequently exceeds that of the soil mixed with it. If in the summer you drive a pole into the turf, which is here formed by the grass or the moss, dirty water, mixed with soil, spurts up in a stream, to a considerable height." He also states, that in Növaia-Zemlia, the ground is frequently penetrated by perpendicular clefts or shafts of ice, never more than four inches in thickness, and occurring, principally, in loamy soils. The ground in that region is penetrated by fissures in all directions, which are the result of contraction produced by the frost. In these fissures, which are usually from one to three inches in width, water is collected in summer, and frozen in the following winter; if the fissures go to any considerable depth, the water is never thawed. This is especially the case if the spot be gradually overgrown with a layer of moss.

The term "ground-ice," which is certainly appropriately applied to this frozen soil, is however sometimes applied to ice which forms at the bottom of rivers under certain circumstances, and which it has been suggested to term "bottom ice," to distinguish it from the former. That ice, which is lighter than water, should be formed at the bottom of rivers, while the liquid current flows over it, though often asserted by some, has been strenuously denied by others; but recent observations have confirmed the fact as a real occurrence; and, as the mode of explaining it has some connexion with our present subject, we will briefly allude to it. Different observers have found, that, at the bottom of very rapid rivers, in cold climates, when the bulk of the water is only just above the freezing point, ice may be seen, generally in small crystalline pieces, and apparently attached to the ground by a slight cohesive force. Sometimes the pieces, without any visible cause, become detached from the bottom, and rise to the surface of the water, bringing with them adherent fragments of sand and stone. M. Weitz, the superior officer of the Imperial Rus-

sian Mining Corps, observed this phenomenon with great attention in one of the Siberian rivers, and in a Memoir, since translated from the Russian by Colonel Jackson, he thus states his views of the cause of this apparent anomaly. "I conceive that the intensity and long continuance of the cold may freeze the soil to the depth of the bottom of the river, particularly where it is not deep, and that there the diminished velocity of the water permits its congelation, particularly if there be any hollows where the water remains stagnant. So long as the congealed masses continue small with regard to the volume of water immediately above them, they adhere as if rooted to the bottom, but when by degrees they increase in bulk, the difference in their specific gravity operates to overcome their adhesion to the bottom, and they rise, bringing with them such gravel and stones as we find attached to them."

With respect to the depth at which the Siberian ground is frozen, Professor Baer remarks that its determination would throw great light on the nature and formation of springs; because most of the Siberian springs, which have their source at a small depth below the surface, cease to flow in winter, as if their very sources were frozen up; whereas others, which flow all the year round, are supposed to have their source in the warm strata beneath the frozen ground. That the Siberians are familiar with the fact of the drying up of small streams in winter, was shown by an odd incident which occurred to Admiral Wrangel a few years ago. He was riding (to the north of Yakutsk, in about 65° N. lat.) over the ice of a pretty considerable river, when the ice suddenly gave way, and his horse sank: he was himself saved by being thrown on the ice, at the moment his horse fell. He was lamenting the loss of his horse to the Yakutskers who accompanied him, as he knew not how to get another; but they laughed at him, and assured him they would soon get his horse back, and with a dry skin too. They procured some poles and broke away the ice, under which the bed of the river was perfectly dry, as well as the horse and his pack. The cause of the phenomenon, which appeared to be well understood by the natives, was this: the surface of the river had become frozen before the spring itself, but when the latter froze likewise, the supply to the river was cut off, and the river emptied itself, and left a hollow shell of ice where the surface of the water had once been.

The Academy of Sciences at St. Petersburg, desirous of ascertaining how far the influence of the air and of summer heat affects the frozen ground, caused a number of thermometers to be buried in the earth at the sides of the deep well sunk through the soil at Yakutsk. The thermometers were placed at the depth of 1, 3, 5, 10, 20, 50, 100, 150, 200, 250, 300, and 350 feet, two at each depth, the bulb of one immersed in the side earth to the depth of a foot, and the other to that of a fathom. These thermometers were to be observed daily for a long period, and there will doubtless be some valuable results obtained from their indications.

Professor Baer has pointed out the desirability of tracing a line round the northern hemisphere, beyond which, northward, there is permanent frozen soil, or ground-ice; and also of determining the depth to which the surface soil is affected by the heat of summer, and the depth of frozen ground beneath. To aid in these investigations, he solicited

the coöperation of the Royal Geographical Society of London, at whose suggestion Dr. Richardson, the able and enterprising Arctic traveller, has drawn up a series of instructions for the servants of the Hudson's Bay Company. The object is to collect information, from every part of the Company's vast territories in North America, respecting the state of the soil at various depths from the surface, and in various latitudes. Investigations of this kind are now being carried on in the northern parts of both continents, and we may confidently look forward to the acquisition of much valuable information on this interesting subject.

POEMS BY AMELIA, is the title of a volume just issued. Amelia is the name by which a Kentucky poetess, Mrs. Welby, is known to the literary world. She writes with great sweetness and flow of versification, a graceful use of poetic imagery, and often with a gentle, womanly pathos. Take, for example, the first five stanzas of the little poem entitled

THE OLD MAID.

WHY sits she thus in solitude! her heart
Seems melting in her eye's delicious blue,—
And as it heaves, her ripe lips lie apart
As if to let its heavy throbbings through;
In her dark eye a depth of softness swells,
Deeper than that her careless girlhood wore:
And her cheek crimson with the hue that tells
The rich, fair fruit is ripened to the core.

It is her thirtieth birthday! with a sigh
Her soul hath turned from youth's luxuriant
bowers,
And her heart taken up the last sweet tie
That measured out its links of golden hours:
She feels her inmost soul within her stir
With thoughts too wild and passionate to speak;
Yet her full heart—its own interpreter—
Translates itself in silence on her cheek.
Joy's opening buds, affection's glowing flowers,
Once lightly sprang within her beaming track;
Oh, life was beautiful in those lost hours!
And yet she does not wish to wander back!
No! she but loves in loneliness to think
On pleasures past, though never more to be:
Hope links her to the future—but the link
That binds her to the past is memory!

From her lone path she never turns aside,
Though passionate worshippers before her fall;
Like some pure planet in her lonely pride,
She seems to soar and beam above them all!
Not that her heart is cold! emotions new
And fresh as flowers, are with her heart-strings
knit;
And sweetly mournful pleasures wander through
Her virgin soul, and softly ruffle it.

For she hath lived with heart and soul alive
To all that makes life beautiful and fair;
Sweet thoughts, like honey-bees, have made their
hive
Of her soft bosom-cell, and cluster there;
Yet life is not to her what it hath been,—
Her soul hath learned to look beyond its gloss—
And now she hovers like a star between
Her deeds of love—her Saviour on the Cross!

Evening Post.

From Chambers' Journal.

NOTHING IS USELESS.

WE are told by old-fashioned economists to keep a thing nine years, and in the end we shall find a use for it—a maxim which receives striking confirmation from the recent progress of the useful arts. Things which, so lately as the commencement of our journal, were laid aside as useless, have now become of value; and substances which at one time were looked upon as positive annoyances and obstructions, have been turned to advantage. We mean to adduce a few examples in illustration of this fact—a fact doubly gratifying, as bearing not only upon what has been thus acquired, but as pointing to every other object in nature, however worthless in the esteem of our present ignorance.

Turning in the first place to agriculture, which, within the last twenty years, has made astonishing progress, we are met at every step with evidences of the fact that nothing is useless. Before the present century, the bones of animals were used to a small extent in turnery and other arts; but the great mass of them was thrown aside as offal, fit only to be buried out of sight. Now, every scrap from kennel and kitchen is carefully collected; mills have been erected in various parts of the country for crushing them; and in this state they are regarded as one of the finest manures for light turnip soils. So great has the demand been for this material during the past fifteen years, that it is imported from foreign and even distant countries; and of late considerable difficulty has been experienced in obtaining a supply. At present, we believe, the price of bone-dust ranges from 20s. to 25s. per imperial quarter—a price so tempting, that adulteration with slacked lime, sawdust, and the like, is not unfrequently resorted to. How our forefathers would have laughed at the prediction of bone-mills, and British soil fertilized with ship-borne bones from Germany and Prussia! The same may be remarked of soot, night-soil, urine, and the waste substances which used to flow from gas-works, and from the factories of the soap-boiler, the sugar-refiner, and others. Not many years ago, these were wholly, or almost wholly, neglected—looked upon as nuisances to be got rid of; now, they are carefully collected, and bring remunerating prices. A story is told that the magistrates of Edinburgh, some century and a half ago, were so thoroughly at a loss what to do with the refuse and offal on the streets, that they felt grateful, if they did not even proffer a reward, to a neighboring laird for carting it off to his land! The worthy magistracy, however, were not more ignorant in their corporate than other people were, at a much later period, in their individual capacities; for most of the substances now valued as manures were then nuisances and obstructions. Soot, then thrown to the winds, is now carefully bagged, and sold at so much per bushel; urine, and other liquid, for which the farmer used formerly to dig a sewer, that it might be carried away from his farmstead, is now tanked, and poured over his land; the *urate* of commerce is but a mixture of urine and calcined gypsum; and night-soil is now extensively prepared with gypsum or lime, put in casks, and sold under the name of *poudrette*. The blood, lime, and animal charcoal, which had served the purposes of the sugar refiner, used to be thrown aside as waste; now, in the south of France, it is sold under the name of “animalized

charcoal,” and has, according to Professor Johnstone, risen to such a price, that the sugar refiners actually sell it for more than what the unmixed blood and animal charcoal originally cost them! Guano, though long used by the Peruvians as a manure, was disregarded by us till within the last eight or ten years. In 1830, a shipowner would much sooner have loaded his vessel with profitless ballast than with this substance; and yet, in 1845, its importation gave employment to a large portion of our mercantile navy, and every rock and islet of the Pacific and Atlantic was visited, lest, happily, a few hundred tons of this deposit might reward the search. Though now reduced to £8 or £10 a ton, seven years ago its price was more than double that sum; and this, be it observed, for a substance which in our boyhood had no mercantile value whatever. The ammoniacal liquor of gas-works, which used to be carried off by covered drains as a nuisance, is now sold to the farmer at so much per gallon. And so rapid are revolutions of this kind, that a gas company, which, to our knowledge, paid several hundred pounds to obtain sewerage for this article, would now reckon its waste to let a single gallon pass that way. And so will it shortly be with the sewer-water of our large cities, to which our ancestors never directed a thought, but which is at present engaging the attention of the scientific, that it may be converted into a source of wealth, instead of being, as it has hitherto been, a source of nuisance and disease.

Nor do we need to look to agriculture alone for illustrations of our maxim: mining and metallurgy are equally rich in examples. Cobalt, which yields the valuable blue pigment of that name, was for ages accounted a very troublesome article to the miner; copper pyrites, the common available ore in England, was, till recently, thrown aside as rubbish by the miners of South America. Mr. Darwin, speaking of the Chilian method of mining, observes, that “the two principal improvements introduced by foreigners have been, *first*, reducing by previous roasting the copper pyrites, which, being the common ore in Cornwall, the English miners were astounded on their arrival to find thrown away as useless; *secondly*, stamping and washing the scorie from the old furnaces, by which process particles of metal are recovered in abundance. I have actually seen mules carrying to the coast, for transportation to England, a cargo of such cinders. But the first case is much the most curious. The Chilian miners were so convinced that copper pyrites contained not a particle of copper, that they laughed at the Englishmen for their ignorance, who laughed in turn, and bought their richest veins for a few dollars. It is very odd that, in a country where mining had been extensively carried on for many years, so simple a process as gently roasting the ore, to expel the sulphur previous to smelting it, had never been discovered.” At the beginning of the present century, the black-band ironstone—which has added an unknown value to the west of Scotland, and materially influenced the iron trade of the world—was treated as so much rubbish: no iron-founder would have taken a gift of it. “For several years after its discovery,” says Mr. Mushet, to whom the credit of first employing the black-band is due, “this ironstone was confined to the Calder iron works, erected by me in 1800-2, where it was employed in mixture with other ironstones of the argillaceous class. It was afterwards used in mixture at the Clyde iron works, and, I believe, no-

where else. There existed on the part of the iron trade a strong feeling of prejudice against it. About the year 1825, the Monkland Company were the first to use it alone, and without any other mixture than the necessary quantity of limestone for a flux. The success of this company soon gave rise to the Gartsherrie and Dundyvan furnaces, in the midst of which progress came the use of raw pit coal and hot-blast—the latter one of the greatest discoveries in metallurgy of the present age, and, above every other process, admirably adapted for smelting the black-band ironstone. The greatest produce in iron-furnace, with the black-band and cold-blast, never exceeded sixty tons a week; the produce per furnace with hot-blast now averages ninety tons. Instead of twenty, twenty-five, or thirty hundred weight of limestone, formerly used to make a ton of iron, the black-band now requires only six, seven, or eight hundred weight for the production of a ton. This arises from the extreme richness of the ore, when roasted, and from the small quantity of earthy matter it contains, which renders the operation of smelting the black-band with hot-blast more like the melting of iron than the smelting of an ore. When properly roasted, its richness ranges from sixty to seventy per cent., so that little more than a ton and a half is required to make a ton of iron." Here was an *El dorado* for our country; and yet, when the present century commenced, no man regarded it; nay, it is only about twenty years since any company was found bold enough to use it without admixture with other ores! The same remarks apply with equal force to *anthracite*, or non-bituminous coal, which, ten or twelve years ago, was known only by the depreciatory names of "stone-coal" and "blind-coal." In our own country this anthracite occupies about one-third of the mineral basin of South Wales; it is found also in France, Austria, Bohemia, and Sardinia; and it constitutes the great bulk of the North American coal-fields, whose dimensions are computed at eighty thousand square miles—about sixteen times as much as the coal-measures of all Europe. At the time we mention, any of these countries would have gladly exchanged its supply of anthracite for a single seam in the Newcastle coal-field; but now, by the application of the hot-blast in iron-smelting and founding, the "stone-coal" of our fathers is employed with as great facility and success as the best bituminous coal. In 1840, at a dinner given at Pottsville, Pennsylvania, by W. Lyman, Esq., on the occasion of his having successfully introduced the smelting of iron with anthracite, Mr. Nicolas Biddle, who attended to witness the result of the experiments, after expressing his entire satisfaction in their success, thus observes:—"And this, after all, is the great mystery, the substitution of what is called the hot-blast for the cold-blast. Let us see the changes which this simple discovery is destined to make. As long as the iron ores and the coal of the anthracite region were incapable of fusion, the ores were entirely useless, and the coal nearly unavailable for manufactures; while as the disappearance of the timber made charcoal very expensive, the iron of eastern Pennsylvania was comparatively small in quantity and high in price, and the defective communications with the interior made its transportation very costly. The result was, that, with all the materials of supplying iron in our own hands, the country has been obliged to pay enormous sums to Europeans for this necessary. In two years

alone—1836-7—the importations of iron and steel amounted to upwards of twenty-four millions of dollars. It is especially mortifying to see that, in Pennsylvania, there has been introduced within the last seven years, exclusive of hardware and cutlery, nearly eighty thousand tons of iron, and that of these there were about forty-nine thousand tons of railroad iron, costing probably three millions and a half of dollars. Nay, this very day, in visiting your mines, we saw, at the farthest depths of these subterranean passages, that the very coal and iron were brought to the mouth of the mines on rail-tracks of British iron, manufactured in Britain, and sent to us from a distance of three thousand miles." Such was the state of matters in 1840; now, there are about one hundred anthracite furnaces in America; iron, lead, and copper are now produced in abundance, and exports, instead of imports, may be shortly expected. What wonderful results have thus been fanned into existence by a current of heated air! Even a use has been found for the iron dross or slag of the furnace, which is generally thrown aside as cumbersome refuse. This refuse, while in a fluid state, is run into iron forms, which are previously brought to a red heat by being placed so as to receive the superfluous flame which issues from the mouth of the furnace. The forms, with their contents, are then allowed to cool slowly by being placed in sand, just as glass is annealed to render it less brittle and more compact. By this procedure, it is asserted that the discoverer (a French mechanic) has succeeded in forming paving-stones, flags, large building blocks, and even pipes, of any given form, of a degree of hardness and polish equal to the best hewn natural granite, and at the most trifling cost conceivable.

The progress of chemistry likewise furnishes abundant evidence that nothing in nature is useless; in fact the whole history of the science is one continued exposition of the doctrine. To take a single example from Baron Liebig's Familiar Letters. Soda has been used from time immemorial in the manufacture of soap and glass—two chemical productions, which employ and keep in circulation an immense amount of capital. Till the present century, this substance was obtained from kelp, barilla, and the like, at great expense, and even in limited and uncertain quantities. Now, it is procured, to any amount, from common salt, and in this process muriatic acid is set free in abundance. "At first," says Liebig, "the profit upon the soda was so great, that no one took the trouble to collect the muriatic acid; it ran to waste—it had no commercial value. A profitable application of it, however, was soon discovered: it is a compound of chlorine, and this substance may be obtained from it purer than from any other source. The bleaching power of chlorine has long been known, but it was only employed upon a large scale after it was obtained from residuary muriatic acid; and it was found that, in combination with lime, it could be transported to distances without any inconvenience. Thenceforth it was used for bleaching cotton, &c.; and but for this new bleaching process, it could scarcely have been possible for the cotton manufacture of Great Britain to have attained its present enormous extent: it could not have competed in price with France and Germany. In the old process for bleaching, every piece must be exposed to the air and light during several weeks in summer, and kept continually moist by manual labor. For this purpose meadow

land, suitably situated, was essential. But a single establishment near Glasgow bleaches fourteen hundred pieces of cotton daily throughout the year! What an enormous capital would be required to purchase land for this purpose! How greatly would it increase the cost of bleaching to pay interest upon this capital, or to hire so much land in England!" And yet the object of this vast saving—this powerful aid to our manufacturing greatness—was, not many years ago, run into the nearest common sewer as a thing "of no commercial value." Nay, we believe the huge chimney stacks which have been erected within the last five years in Glasgow and other places, for the purpose of carrying off the deleterious fumes of the muriatic acid disengaged in the manufacture of soda, are now rendered superfluous, by the conversion of the acid into a mercantile commodity. So blind are we to the demands which the progress of the useful arts may make, that one year we lay out vast sums to get rid of a substance, which in the next we are careful to preserve as a source of pecuniary profit! Another example from the fertile field of chemistry, and we have done. It is known that a fleece of wool, in its natural state, is impregnated with greasy matter, which has to be got rid of, as far as possible, before it can be subjected to the ulterior processes of manufacture. This necessary purification is undertaken by the woolwashers. The waters through which the wool is passed and purified become necessarily the receptacle of all the fatty stuff thus discharged. The habit with the woolwashers has been to throw away these greasy washings as worthless—if in country districts, to the pollution of the neighboring streams; and if in towns, to the nuisance of the streets and thoroughfares. In summer-time and hot weather, the decomposition and pernicious exhalations of those washings become an exciting cause of disease in towns such as Rheims, Elbeuf, &c., where the woollen manufactures of France are most largely carried on. Now, however, by an ingenious appliance, the evil may not only be obviated, but converted into a source of gain to the manufacturer, and healthy profit to the public. By the simple addition of a certain quantity of potash and slacked lime, M. Pagnon-Vautrin has obtained the saponification of the greasy washings, and employs the soap so formed for scouring the fibres or threads of carded wool—thus making, as it were, the fleece scour itself.

Such are a few illustrations—and they could be extended almost indefinitely—of the old-fashioned maxim with which we headed this paper. We know of no fact in our economical progress more gratifying than that we should, within such a brief period, have converted to our use, comfort, and pleasure, so many substances hitherto considered as useless, or even as detrimental. Nor does its bearing end here; it points us hopefully to the future, bids us regard nothing in nature as worthless, and warns us to throw nothing aside until we have exhausted our ingenuity to turn it to advantage. And even then the history of the past must compel us to admit that we have failed in our efforts only for the present, and that a time will come when the rejected object shall assume its value. If the last quarter of a century has furnished us with more illustrations of our maxim than any former period, it is only because human energy and invention has, during that time, been more vigorous and more sustained. There is scarcely any difficulty that the human intellect may not conquer, provided thought—vigorous, concentrated thought—be di-

rected towards it; and it is mainly for want of this that so many objects lie worthless or unimproved around us.

From the St. Louis Union.

MORAL INFLUENCE OF THE WAR WITH MEXICO.

THAT war is an evil, is unquestionable, and that it is to be avoided, so far as may be consistent with honor, is equally true; but there are few evils without a countervailing good.

Civilization has been the legitimate consequence of national conflicts, the justice nor the seeming propriety of which the world could applaud. Collision of arms has brought collision of minds, and general intelligence has increased and gained strength by its very diffusion. Knowledge grows not by hoarding, but, like other wealth, adds to itself by being judiciously imparted.

Whether the present Mexican race is susceptible of much enlightenment, is a matter into which it is not now our purpose to inquire. Sufficient is it, that these people cannot but be measurably improved by the acquaintanceship they must necessarily experience from the existing attitude of the two countries. But a greater benefit than this, or any other which the present race may experience, will be the dispelling of the charm which has so long veiled that country from the rest of the world, as an almost unknown land. The barbarism of the Mexican nation, and the unsettled condition of its government, have conspired to keep hidden one of the first agricultural and manufacturing countries on earth. In future, here will men of enterprise meet from every country, and either elevate the national character of the native Mexicans, or raise up a nation of their own.

This war will facilitate the march of improvement in many respects. The day is not very distant when a race of civilized men must people the shores of the Pacific lying in comparative neighborhood with China. A trade so valuable as one which might readily be established between the Atlantic coast and China, across this continent, cannot for many years be neglected. Opening a path, then, to these distant regions, bringing the Californias near to us, by acquaintanceship, teaching our young men the route to the future homes of many of them, constitute a national good, the benefits of which will be felt when all the evils of the existing war shall have been forgotten.

The acquirement of a more just appreciation of the Anglo-American character, by the Indian, will be another benefit springing from this war. Heretofore the Indians of the southwest have derided all efforts to civilize them, for the reason that those who essayed the task were neither physically nor mentally their superiors. The effeminate Spaniard or mongrel Mexican, has been their object of contempt, rather than emulation. Of other white races they have seen but little, and scarcely dream they are so nearly neighbored by a powerful and highly civilized nation. The Indians of the west and northwest are but little better informed. They have occasionally met with an American trapper, or a missionary, and have learned to fear the one, and respect the other; but as to our national strength, the number of our people, or the condition of the useful arts among us, they know nothing. They have considered our reputed power as a fable, and in more than one instance, it is said, have punished, even with death, those who have repre-

sented the number of white people as being greater than their own.

A military expedition, then, to the interior of that vast region over which so many savage tribes roam—but above all, the subjugation of a nation whom they well infer had injured us, will produce an effect among the amazed red men which cannot but be a guaranty of future friendliness. Convince them that we have the power to punish, and they will take for granted the will. As we have before observed, an intercourse must soon spring up between two branches of a great nation at two extremes of the continent, and anything which will add to the security of that intercourse is manifestly desirable.

COMMERCIAL VALUE OF THE MICROSCOPE.

We lately had occasion to point out the advantages resulting from the study of the microscope, even in a commercial point of view, as exemplified more particularly in the article on the fraud practised by dishonest leech-dealers, an account of which we gave a few days ago. We have now to direct attention to the means for detecting the adulteration of musk, by the aid of the microscope, and for which we are indebted to Dr Neligan, the lecturer on *materia medica* in the Dublin medical school:—This gentleman states, that owing to the high price and great demand for musk, which, as is now generally very well known, is the secretion from the male musk animal, the *moschus moschiferus*, and that it is generally imported into the British market from China, in the natural bags of the animal, by wholesale London druggists, by whom it is retailed to the trade, many of them finding it very much adulterated, prefer purchasing the unopened bag; this precaution, however, is often found not a sufficient protection against fraud, as spurious musk bags are very common, and so well prepared by the ingenious Chinaman, that even the most experienced eye is often unable to distinguish the true from the false; it appears that the Chinese, finding a greater demand for musk than they are able to supply with the genuine article, squeeze out some of the secretion, which is fluid in the recent state, and mix it with, it is believed, the dried blood of the animal; this compound, which presents the same physical characters as true musk, they put into small sacs made of pieces of the skin cut off from other parts of the animal's body, and prepared with the usual ingenuity of this people, so much so, indeed, as almost to defy detection with the naked eye. The method hitherto adopted for detecting this sophistication, has been the peculiar position of the hairs, which are arranged in a circular manner around the orifice in the genuine musk pod. The means which are now proposed to detect the fraud depend on the microscopic character of the hairs, which grow on the sac of the musk animal, and which differ very remarkably from those of the false sacs which are met with in commerce. On placing hairs from both under the microscope, it will be seen that those from the natural sac of the animal are furnished in the interior with distinct, regular, color cells, while in hairs taken from other parts of the animal's body those cells appear to be obliterated, as is generally the case in this and the allied tribes of animals. The method above proposed to detect imposition is a very simple one, and of easy application now that every pharmacist is supposed to be provided with a microscope, without which he could not possibly

detect the adulteration of arrow root and of the other feculas of commerce.—*Critic.*

LITERATURE FOR THE COLONIES.—It will be seen from the following abridgment of an article in the *Montreal Courier*, that the attempts of some spirited English publishers to supply cheap books to the colonies have not yet filled up the blank occasioned by the Copyright Act. The privation, we know, from an extensive private correspondence, has occasioned great dissatisfaction in the British North American provinces. We believe that nothing but an international copyright, to protect the English publisher, and the adoption of the cheap American book style to its full extent, can set matters to rights:—"The inhabitants of the United States, actively engaged in agriculture or commerce, and possessing in but a small degree the affluence necessary to the cultivation of letters, depend, in a great measure, upon the literature of Europe. The supply of the best European authors upon all subjects, which their cheap presses issue at less than a tithe of their cost to other countries,—a system of more than doubtful morality,—has tended to the discouragement of their own authors. This system, unjust as it is to the European author and publisher, and detrimental also to the American writer, yet has been of vast advantage to the mass of the people, by placing within the reach of the poorest classes the best authors of modern Europe, not only in fiction, but the higher branches of literature. The price of European works is such as to place them beyond the reach of any but the most wealthy. The publishing price of one of Bulwer's or James' novels, or that of any other first-class writer, is 31s. sterling, and the consequence is, that but few copies are sold except to circulating libraries; but simultaneously with its appearance in London, while noble ladies besiege the librarian for the next perusal of the much-coveted book, the New York carter or daily laborer luxuriates in a copy of his own, purchased for a sixpence. And, while the London publisher congratulates himself upon having sold an edition of 3,000 in twelve months, the same work has issued from a dozen presses in America in less than as many days, and each publisher has sold perhaps 30,000 copies, which have been distributed through every village in the Union; and, while its merits are being canvassed by the quarterlies, and in the clubs, they are also under discussion in the bar-room and the shanty of the Far West. Works of the higher class are in Europe still more expensive, and their circulation consequently more confined; take, for example, 'Alison's History of Europe,' published, we believe, at £13. 2s. 6d., a price which excludes it from all but the wealthy; the same work was issued in the United States in 16 monthly parts at 25 cents, thus bringing it within the reach of the humblest. The consequence of this system is, that British authors are better known in the United States than they are in Great Britain, and more copies of their works are to be found in a single city there than in the whole country where they were produced. The same remarks apply to this colony, but here we labor under greater disadvantages. Until within a late period we derived our reading chiefly from the same sources through their means; but now we are shut out from that advantage, and although colonial editions of many excellent works are furnished to us at a cheap rate through our enterprising citizens, Messrs. Armour and Ramsay, yet the supply is limited, tardy, and costly."—*Critic.*